



# Establishing and Operating a Fire Department



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## ***Preface***

*This publication is primarily intended to act as a guide for small communities that are considering the establishment of a fire department.*

*It may also be of use to assist community fire departments that are reorganizing or expanding.*

*If you require further information, please contact the nearest Regional Office of the Fire Commissioner.*



## INTRODUCTION

The need for fire protection in the province of Alberta is not a new one. It has been a constant concern of the government and the people of Alberta. The government has been responsible for the fire protection of the province since 1905. The people of Alberta have been responsible for the fire protection of their own property since 1905.

The shift in population which has taken place in the last few decades has brought about a new situation. The population has shifted from the rural areas to the urban areas. This has brought about a new situation for fire protection. The government has been responsible for the fire protection of the province since 1905. The people of Alberta have been responsible for the fire protection of their own property since 1905.

## Acknowledgments

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## INTRODUCTION

The need for fire protection in the province increases as new areas are developed and populated. Rural fire departments often face residential tract development and the occasional large industrial complex, instead of just scattered farm and ranch properties. This can be attributed to the shift of population from metropolitan centers to rural areas.

The shift in population often creates the need for new fire departments. Communities that have previously existed without fire protection are now considering establishing fire departments for both personal property protection and insurance premium savings. The task of establishing a fire department is not a simple one and involves a great deal of community commitment and planning. We live in an age of accountability and liability. The fire department must be properly organized and operated so that it will provide for the maximum protection of personnel and the lives and property of the public that it serves.

The hazards of fire fighting are the same for both career and volunteer personnel and the legal system makes no distinction when determining liability. However, when a fire department is established and operated under the proper authority with sound operational and training procedures, it can provide a valuable community service.

The material in this publication is arranged by subject area, in a step by step approach toward the establishment and operation of a fire department.

It is hoped this information will provide the necessary guidance so that a community can effectively establish, organize and operate a fire department.



# **Establishing a Fire Department**



## **ESTABLISHING A FIRE DEPARTMENT**

A recognized fire department should operate as an agency of local government, through a Municipality (city/district/town/village), Regional District or Improvement District.

### **Definition of a Recognized Fire Department**

A recognized fire department is a group of persons formally organized as an authorized service of a municipal or other local government having a sustainable source of funding, which could include taxation, fees for services provided, contracts, permit fees or other reliable sources of revenue which will support the cost of services provided. A minimum number of trained persons able and equipped to respond with motorized fire fighting apparatus to extinguish fires or to respond to other classes of circumstances which may occur within a designated geographical area.

### **Requirements/Considerations**

Minimum requirements for a department to meet the above proposed definition should include the following:

1. **Organization** – Set forth the requirements for organization under the authority of the *Municipal Government Act*. It should establish requirements for the establishment of boundaries, provision of funding and for the formal appointment of a fire chief by the involved local government body.
2. **Membership** – Establish adequate staffing levels for a recognized fire department.
3. **Training** – Establish minimum training levels including required frequency of training and maintenance of training records.
4. **Fire Fighting Apparatus** – Specify apparatus standards and requirements to comply to ULC S515 and reference NFPA or equivalent standards for fire fighter safety.
5. **Fire apparatus equipment** – Outline minimum equipment requirements pursuant to ULC S515, and local needs and operating conditions.

6. Fire Station – Set forth the requirement for a well designed and located fire station to serve the department and the community.
7. Alarm Notification – Require a reliable means of providing for 24 hour receipt of alarms and the immediate notification of fire fighters required to respond to these alarms.
8. Water Supply – Require that a fire department has an adequate water supply for fire suppression purposes.

## Society Act

The other alternative would be to form an association incorporated under the *Society Act*, RSA 1980. The disadvantage with this method is that the department could not meet the definition of a “recognized” fire department as it would not have local government involvement or a sustainable source of funding such as taxation, fees for services provided, contracts, permit fees or other reliable sources of revenue which will support the cost of services provided.

It is important that fire departments be organized in accordance with the laws of the province to protect the members in matters of legal responsibility. The first step therefore should be to contact any existing local government bodies providing services in the community to solicit their support in the review and establishment process.

Where fire service is being considered inside a municipality, this service would have to be undertaken as a municipal service. When fire protection is being considered outside a municipality, this type of service request would generally be unwilling to provide this service, then this service could be undertaken as an Improvement District service (either as a new service or a new Improvement District.)

- A by-law providing for the establishment, organization and regulation of a fire department within a municipality must be made up in accordance with the *Municipal Government Act*, Part 2, Section 7, Division 1.

The following steps should be undertaken in order to support a request for fire protection service establishment as a Municipal, Regional District or Improvement District responsibility:

1. Carry out an “economic and technical” feasibility study.

- This should be done as a joint exercise between the organizing committee and the local government jurisdiction being asked to take on the service.

- This generally takes the form of a Fire Protection Survey. Assistance can be obtained from the Fire Commissioner's Office.

2. Obtain the necessary "approvals".

- The following approvals will be necessary in order for the fire protection service to become a reality:

a. Elector approval

- those expected to benefit and pay

b. Local Government

- Municipal Council or Regional District/Improvement District Board

3. Put the service in operation.

Once the fire protection service has been established as a local government responsibility, the respective elected bodies will be required to pass or adopt a bylaw for the establishment, organization and regulation of a fire department within their jurisdiction as required by the *Municipal Government Act*.

A sample bylaw has been included as **Appendix 1**.

The following should be taken into consideration when considering a bylaw:

1. The existing size of your community
2. The anticipated size of your community 5 –10 years down the road
3. The type of industrial and commercial occupancy – sawmill, bulk plants, airports, etc.

### **Elected Local Officials – Fire Chief Relations**

Modern day Councils and Boards (Regional district or Improvement District) as a result of public pressure over increasing taxes and debt, are becoming increasingly more interested in the specifics of service operations (including fire protection).

This trend may result in the following advantages or disadvantages to the appointed officers (including the fire chief).

#### *Advantages*

- A better informed group of elected officials.
- An established line of communications between the “policy makers (elected officials)” and the “policy implementer (appointed officers)”.
- A better understanding of community (local government) priorities.

#### *Disadvantages*

- An increased demand for information to be provided by the appointed officers.
- A perceived loss of authority or responsibility, by the appointed officers

If the fire protection service is to be provided efficiently and effectively, there must be dialogue and trust between the elected officials and the appointed officers. Both parties have a role to play in finding the basis for consensus and compromise. The elected officials have to balance the priorities of all the services provided to taxpayers. The Fire Chief must be prepared to document and promote the needs of the Fire Service and to function within the limit of resources provided.

The challenge for the Fire Chief is to develop and operate a fire department capable of providing a level of service which is acceptable to: the public it serves, the public officials it reports to, and those who operate the service (particularly the Fire Chief).

#### **Guidelines for the Fire Chief:**

- Leave policy-making to the elected officials but understand your role in its development.
- Develop established (documented) lines of communication between yourself and the elected officials to deal with all matters involving both groups.

- Be prepared to support your position on all service related issues in the form of reports.
- Understand the roles of elected body (Council or Board) and yourself before taking on the position.
- Be accessible.
- Be professional.
- Remember the public and elected officials are always right (it's just a matter of how right).

### **Major Items to be Considered**

Major items which must be considered when forming a volunteer fire department are:

1. Fire Apparatus – must be compatible with water sources
2. Fire Fighting Equipment – including personal equipment
3. Fire Station – location and design
4. Staffing – as many members as possible – a minimum of 15 is recommended
5. Communication System
  - from the public to the fire department
  - from the fire department to the fire fighter
  - between fire fighters
  - between mutual aid agencies
6. Water Supplies – hydrants, standpipes, lakes, streams and other man made sources, reliability and quantity
7. Private Property – the ability of a fire department to enter onto private property to extinguish a fire which is endangering surrounding property or buildings
8. Mutual Aid – legal agreements under Part 2, Division 1, Section 7, *Municipal Government Act* with adjacent fire departments and Alberta Sustainable Resources

9. Personal Protection – compensation for the fire fighters in the event of an accident
10. Geographical Boundaries – what areas will be included in the fire protection area; - mutual aid areas; - areas where fire protection will be required in the future.
11. Population data – the total population now, projected population in 5 years and seasonal variations
12. Physical data – the road system, topography, weather conditions,
13. Land use – total area, urban, rural, residential, wild land, grasslands, commercial, industrial, agricultural
14. Legal considerations – Workers' Compensation Board requirements and indemnification of local government and fire department members
15. Funding – Long term capital planning in place to ensure the resources are available to finance future capital improvements and to fund the day to day operations of the department.

A basic, systematic approach should result in determining the answers to the following questions (Master Planning):

- What are the real fire problems?
- Do people know how to behave in fires?
- Do we have “high risk” groups of people in the area?
- What kind of fires have occurred, and what losses have resulted from these fires?
- What specific fire risks now exist or are expected to exist in the foreseeable future?
- Is there an increase or decrease in the population?
- What is the present economic make-up?
- What are the future growth projections, land use and zoning plans?
- What is the condition of housing?

- What is the projected industrial growth?
- What are the transportation conditions?
- What plans are in existence at community, local government (municipal, regional district or improvement district) or provincial levels which could influence the planning?

Answering these questions is hard work. Community involvement is an important element in the master planning process.

Early citizen participation and support can do much to eliminate concerns and avoid misunderstanding.

### **Fire Protection System Defined**

The community as a whole needs to understand what master planning is and what it is not. The people must not feel threatened by the planning process; they should feel that they are a part of it and have a say in what happens.

Planning will take a lot of work and some of the decisions will be difficult, but the results are well worth the effort.

When it is completed the master plan is presented for approval and adoption. Adoption of the plan is the final step of the planning phase; it is here that the community commits itself to the plan.

Commitment means that the level of fire protection service, and therefore the risk, is fully understood and accepted.

It also means that the cost and the resources needed to provide the protection are understood and accepted.

This is especially important where changes in current methods are to be made—for example, increased private sector participation through mandatory installation of smoke alarms, smoke detectors or sprinkler systems.

To better understand fire prevention and control as a workable system, consider the term “fire protection” as defined by the National Fire Protection Association:

***“Fire Protection.*** *The science of reducing loss of life and property by fire, including both fire prevention and fire extinguishment by public*

*or private means. Also, the degree to which such protection is applied.”*

This definition recognizes a collection of activities (for fire prevention and for fire control) and of system elements (public and private) as being included in the idea of fire protection.

Fire protection has long been thought of as a service that is provided by a fire department in the form of fire fighters and fire engines speeding to the scene of a fire, a rescue, and automobile accident, a drowning child trapped in a well. As far as it goes, this is an accurate view, but there is much more to fire protection than putting out fire and rescuing people.

Although not generally recognized as such, perhaps a more important part of fire protection is a system where people and equipment work together to prevent fires. For example, if there were no fire prevention oriented building codes and if people were not reasonably aware of fire danger, fire losses would be immeasurably greater and fire suppression forces would be overwhelmed.

In a typical community each of the following organizations is a part of the protection system:

**Fire Department** – Performs rescue, fire extinguishment, fire cause determination, emergency medical services, routine fire prevention activities such as inspection and code enforcement as per the Safety Codes Act.

**The Fire Chief** – may be appointed as a Safety Codes Officer to enforce the Safety Codes Act and pursuant regulations.

**Building Department** – Administers and enforces the Building Regulations of the Alberta Building Code in new construction and old construction undergoing remodeling.

**Road/Street Department (Public Works)** – Constructs, marks and maintains traffic corridors (roads, bridges, access design) for motor vehicle use, including fire apparatus. Rural property identification and numbering along with a detailed map of area to be protected.

These departments are a source for bulldozers, road graders, water tanks, and other heavy equipment useful in times of major fires.

**Law Enforcement Agencies** – Function in arson investigation, arrests, prosecution, traffic control, and other police action necessary in times of major fires.

**Water Purveyor of Water District** – Supplies and distributes water for fire protection.

**Emergency Health Services** – Administers emergency medical care and transports fire and accident victims.

**Public Schools and Community Colleges** – Sponsors public awareness programs in fire prevention and control to education children and adults.

**Planning Commission** – Determines zoning which influences the spread of fire.

**Citizens** – A personal concern and responsibility for themselves and their neighbors.

## **Master Planning**

Fire protection generally has not been considered as a system which can be defined, directed and controlled. Many communities have applied master planning to fire protection.

Planning is the key to adequate fire protection, but the planning must be done at the local level. Identify the community's fire situation and the factors influencing it. This is done for the present and the future.

Establish goals and objectives, determine what fire protection is needed now and what will be needed at the end of the period for which you are planning.

Communities are being challenged to control or reduce costs and yet maintain or improve – herein lies the challenge facing master planning.

## **Reasons for a Community Fire Protection Plan**

- to reduce life and property loss
- to improve fire protection services, especially fire prevention
- to involve non-traditional agencies and groups in fire protection
- to control fire protection expenditures
- to identify community fire protection goals

- to document current and future fire protection environment
- to document current and planned fire services
- to identify current and future fire protection resources
- to establish inter-agency fire protection policies, procedures and responsibilities
- to establish fire protection requirements in community development plans
- to evaluate innovative methods of fire protection

Community growth will have a great impact on planning. If there is a great influx of people and services into your area, there will be a need to re-assess the capital items that would be required to accommodate that growth. The following areas will require careful consideration:

- Replacement of worn out or inadequate equipment.
- The type of development, whether residential, commercial or industrial, and the implications for equipment because of taller buildings or toxic material storage or manufacture.
- Demands on staffing due to increased calls, inspections and education.
- The distance development is occurring from existing or proposed fire stations, satellite halls may be required.
- Water requirements with systems having adequate fire flows or alternate sources of water.
- Establishing guidelines with regards to accessibility, road grades, sprinklers in commercial buildings and the location of hydrants.

## **Fire Protection Costs and Value**

Whenever a movement is begun either to establish fire protection or to improve the existing services, voices may be raised in alarm. Often the citizens express the feeling that the proposed changes are too costly. Similar exclamations are frequently heard about the costs of maintaining the existing levels of protection.

One reason for the belief that fire protection may be too costly is that people may not understand what fire protection really is. They are not sure whether the protection they pay for is the protection they need or whether they are paying more than their fair share.

Careful planning offers the best approach toward balancing costs with fire protection needs as reflected by the thoughtful desires of local citizens. Involving citizens in the planning process provides the opportunity to inform them regarding fire protection costs, benefits and risks and thereby gain their support for implementing a fire protection system of known performance and cost.

This matter of cost and value is no small problem, but it is the basis for justifying the expense of needed fire protection.

Determining the cost and value of fire protection has been traditionally difficult. Few communities actually try to measure such things, consequently few know the true costs of operating a fire protection system. The expenses of funding an organized fire department are regularly calculated, but they are by no means all the costs of fire protection. Here are a few of these "other" costs:

- Water distribution and maintenance costs for pipes, hydrants and plant capacity and operations used for fire protection
- Fire insurance costs
- Costs for built-in fire protection such as sprinkler systems and smoke and heat detectors
- Private fire brigade

In addition, the costs of administering building and fire codes, building permit and inspection programs, and other similarly oriented fire protection programs, must be included.

There are also benefits to these costs which are important, such as:

- Life safety, which is applicable to anyone
- Fire loss, the reduction in dollar losses to property as a result of fire
- Job loss, the reduction in the number of jobs, or the dollar value of those jobs, lost to fire

- Community tax loss, the reduction of loss of revenue to the area due to loss of property and jobs due to fire
- Fire insurance premiums, the reduction in insurance costs
- An organized body of trained individuals that can be called upon in a community emergency
- Peace of mind

### **Use of Available Resources to Improve Fire Protection**

Some ways fire protection can be improved, even if resources are relatively scarce, include inexpensive programs of action to raise everyone's level of fire awareness and reduce the number of existing hazards.

In communities where public funds can be made available, you may wish to consider the value of expanding fire programs to include:

- The Fire Department objectives of preventing fires from starting; of preventing loss of life and property when a fire starts; of confining a fire to the place where it starts; and of putting out the fire.
- Public education programs designed to reach all citizens in your community through regular classroom instruction, group lectures and demonstrations.
- An active and constructive fire inspection program, coupled with the public education program, organized with the intent to remove common and not-so-common fire hazards.
- An active fire cause investigation program
- A smoke alarm installation and maintenance program
- A fire extinguisher program designed to put portable extinguishers into homes and places of business and to teach everyone how to use them.
- Encouraging the development of better water supply and distribution systems.

# **Purchasing Fire Apparatus**



## **PURCHASING FIRE APPARATUS**

Purchasing the correct apparatus that is capable of doing the best job for the least amount of money is a tremendous responsibility for fire department officers. As these vehicles involve an investment of thousands of dollars, caution must be exercised when writing specifications, evaluating bids, and awarding the contracts.

### **Competitive Bid Purchase For New Apparatus**

Generally, purchases are made by specifying the features desired in a fire apparatus and asking for bids. This method is known as purchasing by competitive bids based on adequate specifications. It is designed to eliminate favoritism or personal influence, ensure delivery of equipment that will perform satisfactorily and provide the purchaser with maximum utility and economy.

However, such benefits are only realized through the use of proper standards, the apparatus will be no better than the specifications. Few are able to employ personnel with qualifications and ability to draw up specifications that will adequately cover all phases of construction and performance of fire apparatus.

Frequently, in attempting to draw up adequate specifications, the result becomes so excessive or restrictive in some requirements that it increases the cost unnecessarily or prohibits bidding entirely. Often important requirements are omitted and irrelevant and unduly costly provisions are included.

In order to provide uniformity and ensure basic essentials are included, this office suggests that fire apparatus be designed to ULC S515 Standard for Automobile Fire Fighting Apparatus. The specific sections to meet your needs are explained in this guide.

### **Writing the Specifications**

Determining exactly what type, size, and model to purchase is the first step in writing specifications for fire department apparatus.

As the department will probably be either blessed or stuck with this equipment for 20 or more years, a great amount of thought must be devoted to acquiring the best vehicle for the job.

Consideration should be given to the fire hazards, terrain, roads and highways, weather and climatic conditions, building heights and areas,

water supply, fire station location, mutual aid arrangements, and every other character of the response area that this apparatus will be expected to protect.

Growth possibilities of the area should also be considered.

Higher structures and larger buildings may be constructed.

Unprotected areas may be annexed. After all of these variables are analyzed, then a definite idea can be formed of what size and type of apparatus will do the best task.

A department that has to primarily protect rural areas must be concerned about not ordering a vehicle that is too heavy for the unimproved roads.

Highly maneuverable apparatus are needed in areas with narrow and winding streets. Areas with large industrial factories may require an engine with 6800 litres per minute (1500 IGPM) capacity and a 2300 litre (500 gallon) water tank, while a rural department may be better served with a 2840 litre per minute (625 IGPM) engine with a 4500 litre (1000 gallon) water tank.

It is best to order by performance specifications as detailed in ULC S515. They allow the manufacturer greater latitude in selecting the best and most modern components and equipment for the vehicle. A deviation from this principle may be to designate a diesel engine over gasoline powered, an automatic instead of a manual transmission, a certain model of chassis because of the availability of repair facilities, or other definite preferences.

### **Specification Checklist**

This list of questions is designed to assist you when reviewing your specifications prior to sending them out.

Is year of chassis shown?

If gas engine, is the carburetor 2 or 4 BBL?

What size of engine?

What type of engine, gas or diesel?

What size of pump?

What type of transmission – manual or automatic?

Are rear end ratios given?

Are the springs and axles adequate for the anticipated gross vehicle weight?

Is the tire size adequate for the gross vehicle weight?

Are the tires readily available commercially?

What capacity in C.F.M. is compressor rated?

Is an electric compressor included?

Is air dryer included?

Are batteries in parallel and if dual battery system is used is cut off switch on dash?

What is fuel tank capacity?

Do West Coast Mirrors include amber lights?

What alternator amperage capacity is shown?

Is block heater included, if so what type?

Is unit equipped with back up alarm?

What gauges are listed on pump operator's panel?

Is booster tank water gauge specified?

Do compartments have full adjustable door catches?

On lower compartments are all floors raised for easier cleaning?

Are compartment door seals replaceable?

Are all ladder and suction hose brackets adjustable?

Do upper compartments have swing up doors c/w lights and gas cylinders?

Is rear step supported by 4" channel iron from main frame?

Is tank under warranty for 15 years?

If unit is equipped with transverse hose beds are rollers and spools supplied?

Does pump panel have lights?

Is unit equipped with suction hoses and screen?

Is hot water heater and fan installed behind operator's gauge panel to prevent freezing of instruments?

Does pump have auto lube system?

On pump spec sheet, is pump rated and tested to 600 p.s.i.(4100 Kpa) hydrostatically and hydrodynamically?

What type of fire fighting equipment is included on quote specs?

If booster reels are requested, are rollers, hose and nozzle included on quote specs?

Is unit lettered and painted?

Is firm delivery date shown on quote?

Are ladders and extinguishers included in spec sheet?

If unit is equipped with automatic radiator shutters, is manual override included?

On units equipped with transverse hose beds, are hose beds equipped with 1-1/2 Chicksan Swivel joints?

Does the vehicle comply with W.C.B. requirements?

### **Awarding the Contract**

Most governmental agencies have established policies when writing specifications, advertising for bids, and awarding the contracts for any purchase of a substantial amount. Because these are primarily legal processes, local laws play a fundamental role in the apparatus and equipment acquisition process.

If the estimated amount of the contract exceeds a certain specified sum of money, sealed bids must be solicited by public notice in the particular manner and subject to the requirements of the law.

When any agency calls for bids for the purchase of apparatus or equipment, specifications should not be prepared so as to exclude all but one type or kind, but should include competitive supplies and equipment.

Writing specifications with the intent of securing one certain model and make of apparatus is discouraged. Fire department officers occasionally are so convinced that one manufacturer builds better equipment, they will use the product's advertising specifications to write the bid specifications. This practice smothers competition.

The underlying principle of the bidding process is that the governmental body awards the contract to the best competitor meeting the terms and conditions of the bid invitation.

To determine if a bidder is truly responsible and capable of fully performing the desired services or furnishing the wanted equipment or vehicle, it is a legitimate obligation of the agency to investigate the bidders to determine that they do have the skills, abilities, and record of past performances to ensure that the specified item will be delivered at the correct time.

The low bid does not have to be accepted if it can be clearly shown that a higher priced apparatus is a better buy for the money. There are many legitimate questions that should be answered before a bid is awarded.

Only after the correct type and size of apparatus has been decided on, proper specifications written, bids solicited from a reasonable number of manufacturers and the bids are analyzed can the contract be awarded.

Supervision during construction may be required. A thorough inspection and testing period should be conducted upon delivery of the equipment or vehicle. This way the department has the certainty they have selected the apparatus that will do the best job for the best price.

### **Insurance Grading Recognition of Used or Rebuilt Fire Apparatus**

The performance ability and overall acceptability of older apparatus has been debated between municipal administrations, the public fire service and many others for many years. The Fire Underwriters Survey (F.U.S.) have addressed this question as follows:

“The public fire service is unique. It is probably the only emergency service whose vehicles are not continuously in use. However, when in use the apparatus is subject to considerable mechanical stress due to the nature of its function. This stress does not normally manifest itself on the exterior of the equipment. It is effectively masked in most departments by

a high standard of aesthetic care and maintenance. Truck and pump manufacturer maintain a parts inventory for each model year for a finite time. After that period, obtaining necessary parts may be difficult. This parts shortage is particularly acute with fire apparatus due to the narrow market conditions for these devices.

F.U.S.'s lengthy experience in evaluating fire apparatus indicates that apparatus should be designed to an acceptable standard. We recommend Underwriter's Laboratories of Canada, (U.L.C.) Standard S515 "Standard for Automobile Fire Fighting Apparatus."

Fire apparatus should be built by recognized manufacturers. Fire apparatus should respond to first alarms for the first fifteen years of service. For the next five years it should be held in reserve for use at major fires or used as a replacement for out-of-service first line apparatus. Apparatus should be retired from service at twenty years of age.

Present practice indicates that the recommended service periods are usually followed by the first purchaser. However, at the end of that period the apparatus is either traded in on new apparatus or sold to another fire department. At this juncture, the unit may have one or more faults which precludes effective use for emergency service. These deficiencies may include:

- 1) inadequate braking system
- 2) slow pick-up and acceleration
- 3) structurally weakened chassis due to overloading
- 4) pump wear

Insurance Grading Recognition of Used or Rebuilt Fire Apparatus F.U.S. has modified its application of the age requirement for used or rebuilt apparatus. Due to municipal budget constraints they have continued to recognize apparatus over twenty years of age, providing the truck successfully meets the recommended annual tests.

If the apparatus does not pass the recommended tests or experiences long periods of "down time", F.U.S. may request the municipal authority to replace the equipment with new or newer apparatus. If replacement occurs, continued fire insurance grading recognition would be ensured.

Fire Underwriters' Survey is a national organization, financed and directed by the Insurance Bureau of Canada (I.B.C.), a national association representing 80 percent of the private sector property and casualty insurers in Canada.

## **Recommended Service Tests for Used or Modified Fire Apparatus**

### **Introduction**

The intent of this section is to ensure that all used or modified fire apparatus, equipped with a pump or used for tanker service, essentially meets the requirements of Underwriters' Laboratories of Canada "Standard for Automobile Fire Fighting Apparatus" – S515, or subsequent current editions of the Standard. Full adherence with the following specified tests is recommended.

#### **1. Weight Tests**

- 1.1 Load Balance Test: When fully laden (including a 460 kg (1,000 pounds) personnel weight, full fuel and water tanks, specified load of hose and miscellaneous equipment), the vehicle shall have a load balance of 22% to 50% of total vehicle mass on the front axle and 50% to 78% of this mass on the rear axle.

Distribution of mass of 33% and 67% respectively on the front and rear axles is preferable for a vehicle having dual rear tires, or tandem rear axles.

For a vehicle having tandem rear axles and dual tires on each axle, a loading of between 18% and 25% on the front axle with a balance of mass on the rear axles is permissible.

#### **2. Road Tests**

##### **2.1 Acceleration Tests:**

- 2.1.1 From a standing start, the apparatus shall attain a true speed of 55 kmh (35 mph) within 25 seconds for pumpers carrying up to 3,150 litres (700 gallons) of water.

For apparatus carrying in excess of 3150 litres (700 gallons) or apparatus equipped with aerial ladders or elevating platforms, a true speed of 55 km/h (35 mph) in 30 seconds should be attained.

- 2.1.2 The vehicle should attain a top speed of at least 80 kmh (50 mph).

- 2.2 Braking Test: The service brakes shall be capable of bringing the fully-laden apparatus to a complete stop from an initial speed of 30 kmh (20 mph) in a distance not exceeding 9 meters (30 ft) on a dry, hard surfaced road that is free of loose material, oil or grease.

### 3. Pump Performance Tests

- 3.1 Hydrostatic Test – Recent evidence of hydrostatic testing of pump for 10 minutes at a minimum pressure of 3,400 Kpa (500 p.s.i.).

APPLICABLE TO NEW OR REBUILT PUMPS ONLY.

#### 3.2 Priming and Suction Capability Tests

- 3.2.1 Vacuum Test: The pump priming device, with a capped suction at least six metres (20 ft) long, shall develop 75 Kpa (22 inches of mercury) at altitudes up to 300 metres (1,000 ft) and hold the vacuum with a drop of not in excess of 34 Kpa (10 inches of mercury) in ten minutes.

For every 300 metres (1,000 ft) of elevation, the required vacuum shall be reduced 3.4 Kpa (1 inch of mercury).

The primer shall not be used after the 10 minute test period has been started. Tests shall be made with discharge outlets uncapped.

- 3.2.2 Suction Capability Test: The pump (in parallel or series) when dry, shall be capable of taking suction and discharging water with a lift of not more than 3 metres (10 ft) through six metres (20 ft) of suction hose of appropriate size, in not more than 30 seconds, and not over 45 seconds for 6,000 L/min (1320 Igpm) or larger capacity pumps. Where front or rear suction is provided on midship pumps, an additional 10 seconds priming time will be allowed. The test will be conducted with all discharge caps removed.

#### 3.3 Pump Performance

- 3.3.1 Capacity Test: Consists of drafting water (preferably with a 3 metre (10 ft lift)) and pumping the rated capacity at 1,000 Kpa (150 psi) net pump pressure for a continuous period of at least one hour.
- 3.3.2 Pressure Test: Under the same conditions as in 3.3.1 above, pumping 50% of the rated capacity at 1700 Kpa (250 psi) net pump pressure for at least ½ hour.

For additional information on the above noted tests and the test procedures, the following documents provide useful data:

1. Underwriters' Laboratories of Canada, Standard S515, "Standard for Automobile Fire Fighting Apparatus"
2. Fire Underwriters' Survey publication entitled "Fire Stream Tables and Testing Data"
3. International Fire Service Training Association, "Fire Department Pumping Apparatus (7<sup>th</sup> edition)"
4. National Fire Protection Association (NFPA) Standards 1901, 1902, 1903, 1911.

## **Replacement Purchase**

It is wasteful economy for a municipality not to provide apparatus and equipment of the best and most dependable type. The largest expense for a fire department is the cost of maintenance of the fire apparatus and equipment, self contained breathing apparatus, fire hall, licenses, insurances, heat and light.

The initial cost of apparatus which has a service life of at least 20 years is proportionally small in the overall budget.

The number of miles traveled and hours of pumping operation do not normally provide a basis for determining the need for replacement. Many other factors limit the effective and economical life of an apparatus and make replacement desirable: advancements in design of fire fighting equipment; inadequate protection for driver and fire fighters; structurally weakened chassis because of overloading; increased maintenance costs; parts replacement difficulties with old apparatus; and lack of reliability under the stress of emergency service.

Some of these drawbacks increase the dangers to the public and to fire fighters because of the increased chance of accidents.

Apparatus relieved from first-line service may be retained as reserve equipment; this should also be considered when assessing replacement costs.

Reserve funds should be in place so that a fire department is not left in the situation of shutting down because there are no funds available to continue due to broken down equipment that cannot meet the certification.



# **Fire Station Location and Design**



## **FIRE STATION LOCATION AND DESIGN**

The functional worth of a fire station is established in the planning stages. In these days of high construction costs the expenditure of public funds must be carefully considered to avoid serious and costly mistakes.

The area to be protected is a determining factor in planning the location, type and size of the station – whether it be residential, urban, suburban, rural, mercantile or industrial; congested, high hazard, open, zoned or unrestricted.

The proximity of schools, hospitals, theatres or other places of public assembly; also the geographical and topographical relationship to other stations if any; existence of permanent traffic obstructions such as rail road tracks must also be taken into account.

Other fundamental considerations are the number and types of apparatus to be quartered and whether or not a chief officer or officers will be headquartered there.

Fire stations should not be located on heavily traveled roads, or one-way streets. The street should be of good width, perhaps a secondary arterial which could provide a clear fire lane across the protection area. There should be a minimum of traffic congestion in the area.

The site should be level, never on a hillside and when possible one or more rear doors provided for the apparatus room for drive-through traffic. If the station is in a residential area it should be on a sufficiently large plot to allow for attractive landscaping. In such locations it is essential to conform the design to the architecture of the locale.

The problem of locating a fire station has probably caused more debate than anything else affecting the fire service. Fire chiefs who encounter the opposition of taxpayers, real estate and other groups in selecting a site for a fire station in a residential area should be able to prove that locating a modern fire station in any residential area does not decrease property values, but tends rather to increase it.

The apparatus room is the heart of every fire station; its location, size, shape, layout and provision for easy, quick access from all areas are factors that establish good functional design. In determining size and layout the planning committee must consider both immediate and future needs of the fire fighters that may occupy the station.

Apparatus Room doors should be at least 3.6 meters (12 ft) wide and 4.3 meters (14ft) high, and when possible each piece of apparatus should have direct access to the street. Single truck stations should be at least 7.5 meters (25 ft) wide whereas multi truck stations require a minimum width of 6 meters (20 ft) per truck.

Depth is dependent upon the number of pieces of apparatus to be housed. Ample space must be provided at the front, sides and rear of apparatus to permit routine maintenance, ease of response and repacking of hose.

Apparatus room floors should be of concrete slab construction with care taken to avoid a slick finish. The floor should be pitched for adequate drainage, but not so steeply that the apparatus will roll toward the doors when the brakes are off.

Suggested ceiling height for the room is 5 meters (16 ft). Overhead, counterbalanced, electrically operated doors with controls either at the alarm room or apparatus room are recommended, however, provision should be made for manual operation in case of power failure.

Other equipment in the apparatus room should include a battery charger, water taps, cleanup tools and maintenance equipment.

Electric or gas fire hose draying equipment is now available which can effectively replace the hose tower of days gone by. Several of the advantages of this modern equipment include reduced construction costs and energy efficiency.

Fire hose washing machines along with dryers and storage racks properly belong in the apparatus area unless a special hose-servicing room is provided.

The mobile type of hose rack, equipped with locking casters and a rotating table for reloading apparatus, is very popular and offers several advantages over the old type racks which were made of pipe and wood.

The Alarm Room is the nerve center of the station, where supervision is maintained over all communications. The old time watch desk, formerly located on the apparatus floor, has given way to a separate room where all alarm communications and controls are centered.

Tack boards, bulletins, radio consoles, telephones, enunciators, speakers and all other signaling and alarm equipment should be arranged in a compact orderly manner and conveniently located.

Ready access to the concealed wiring and cables should be provided and station-wide public address system is desirable.

A minimum of two showers, two water closets, two urinals and two wash basins should be provided for the male personnel and the equivalent for the female personnel.

The electrical system should be surveyed and determined by a qualified electrical engineer. There should be plenty of service outlets for cooking, air conditioning, radio, television, battery charges, electric portable tools, projection and sound equipment, etc.

Fluorescent lighting fixtures are recommended in all areas with possible exceptions of closets, storage rooms and basements. Exterior floodlights are advisable for drives and parking areas.

Ample window, providing plenty of daylight, eases the demand on lighting circuits.

A clean, soundproof room dedicated to self-contained breathing apparatus air filling can be incorporated into the design. The compressor and air bank can be located for easy access. All breathing air must comply with WCB Regulation 14.25.

A well-equipped lecture and reading room with good chairs, convenient tables, television, VCR, radio, and a library with books and subscriptions to leading Fire Trade periodicals is desirable.

While the requirements considered above are common to both volunteer and paid departments, there are some differences in station design. Because the volunteer station may be used for other functions, they are equipped with kitchens, sometimes meeting rooms which can be divided into several smaller rooms as the occasions require by means of folding partitions. A separate entrance will help alleviate traffic through the fire station.

Because the fire protection needs of jurisdictions are always changing, a fire station which is adequate today may require extensive expansion or modification in just a few years. It is necessary for local fire stations to be designed and constructed to accommodate anticipated changes to their staff, equipment and services.

Only when they have been designed for flexibility and adaptability to change can these essential facilities expand and adjust to meet new demands with the cost effective alterations.

There are many fire stations located within each region. It would be wise for any department contemplating a new station to look at other existing stations. Other fire departments can state what they like and don't like about their own fire station.

# **Organizations**



## **ORGANIZATIONS**

### **Office of the Fire Commissioner**

The goal of the Fire Commissioner's Office is to minimize the loss of life and property from fire.

Advice and recommendations in the development of by-laws with assistance in ways of achieving this goal.

The Fire Commissioner's Office is not a funding source for fire departments, however, from time to time the Provincial Government makes grants available through the Fire Commissioner's Office for training initiatives.

The Fire Commissioner's Office can assist in determining the needs of equipment, apparatus, water supplies, and staffing of fire departments.

The Fire Commissioner's Office can assist in the provision of fire prevention programs and materials.

The Fire Commissioner's Office can assist/advise with regard to fire cause determination.

The Fire Commissioner's Office collects, stores and analyzes fire protection data and disseminates information and statistics based upon such data.

The Fire Commissioner's holds joint certification with the Alberta Fire Training School and is directly involved in the planning and delivery of training courses and curriculum.

The Fire Commissioner's Office partners with the Alberta Fire Chiefs Association and together strives to improve the fire and life safety in the province and reduce the loss of life and property from the devastating impact of fire.

### **Other Resources**

Refer to the Fire Chief's Handbook.

### **Important Agencies**

NFPA – National Fire Protection Association

IAO – Insurance Advisory Organization

WCB – Worker's Compensation Board



April 16, 2002

## NOTICE TO FIRE DEPARTMENTS, RCMP AND MUNICIPALITIES

The Fire Commissioner's Office has completed an internal re-organization and has initiated an operational plan for assistance and advisory support for the Alberta Fire Services. **Commencing May 30, 2002**, requests for assistance or advisory service relating to Fire Protection, Prevention, Public Education, Administration Services, Training and Fire Investigations shall be routed as follows.

**For After Hours Emergency Assistance:**  
**Phone: 1-877-427-8393**

**This 24 hr number will ensure the most efficient and effective response by Fire Commissioner's Office personnel.**

Investigations, Advisory and Fire Service Assistance  
Contact Regional Office or  
Phone: (780) 427-8392  
Fax: (780) 427-5898  
E-Mail: [firecomm@gov.ab.ca](mailto:firecomm@gov.ab.ca)

It is anticipated that requests in this area will be made during **normal working hours** Monday to Friday.

Fire Prevention Programs and Activities -  
Risk Watch, Public Fire Safety Education, Program Information, Library Services  
Phone: (780) 427-8392  
Fax: (780) 427-5898  
E-Mail: [firecomm@gov.ab.ca](mailto:firecomm@gov.ab.ca)

It is anticipated that requests in this area will be made during **normal working hours** Monday to Friday.

Your cooperation in using the outlined procedures is requested.

It is the intent of the Fire Commissioner's Office to provide the best possible information and assistance to the Fire Service community in Alberta. In order to achieve this objective, it is necessary to establish and maintain a system, which will effectively address the needs and requests of all concerned in an organized and systematic manner.

Please do not hesitate to call the Fire Commissioner's Office if and when you require information or assistance, use the system and assist us in developing and maintaining a first class service. Provision of Fire Protection is a *team effort*, the Fire Commissioner's Office is committed to this objective.

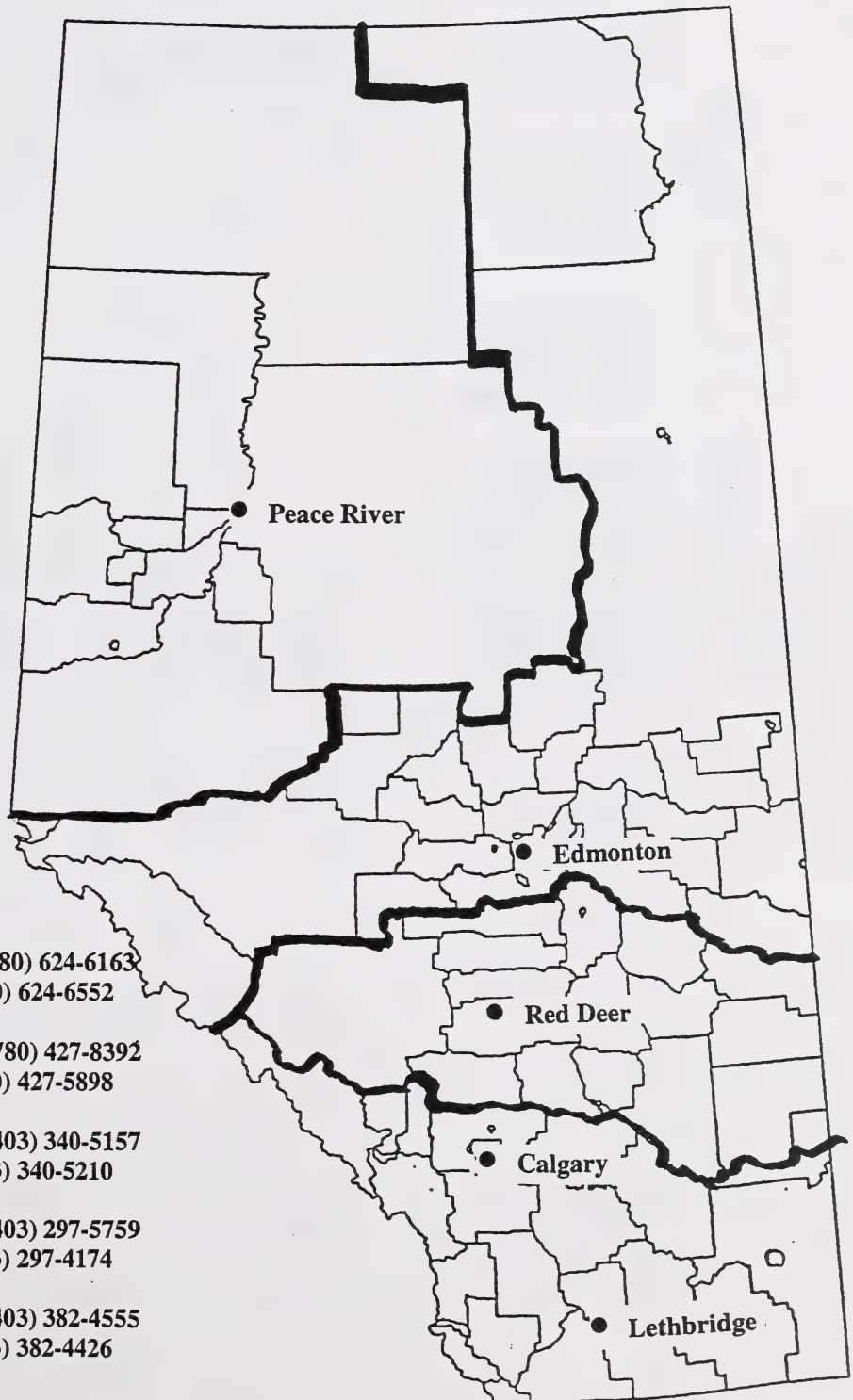
During the coming months, the Fire Commissioner and Deputy Fire Commissioner will begin visiting fire departments on an informal basis. We hope to visit as many as possible in 2002 and get to meet and share some of your experiences and observations first hand. We encourage your suggestions and feedback.

Yours truly,

A handwritten signature in dark ink, appearing to read 'J.P. Graham', with a stylized flourish at the end.

J.P (Pat) Graham  
Fire Commissioner

# FIRE COMMISSIONER REGIONAL OFFICES



Peace River

Edmonton

Red Deer

Calgary

Lethbridge

Peace River Office – Phone: (780) 624-6163  
Fax: (780) 624-6552

Edmonton Office – Phone: (780) 427-8392  
Fax: (780) 427-5898

Red Deer Office – Phone: (403) 340-5157  
Fax: (403) 340-5210

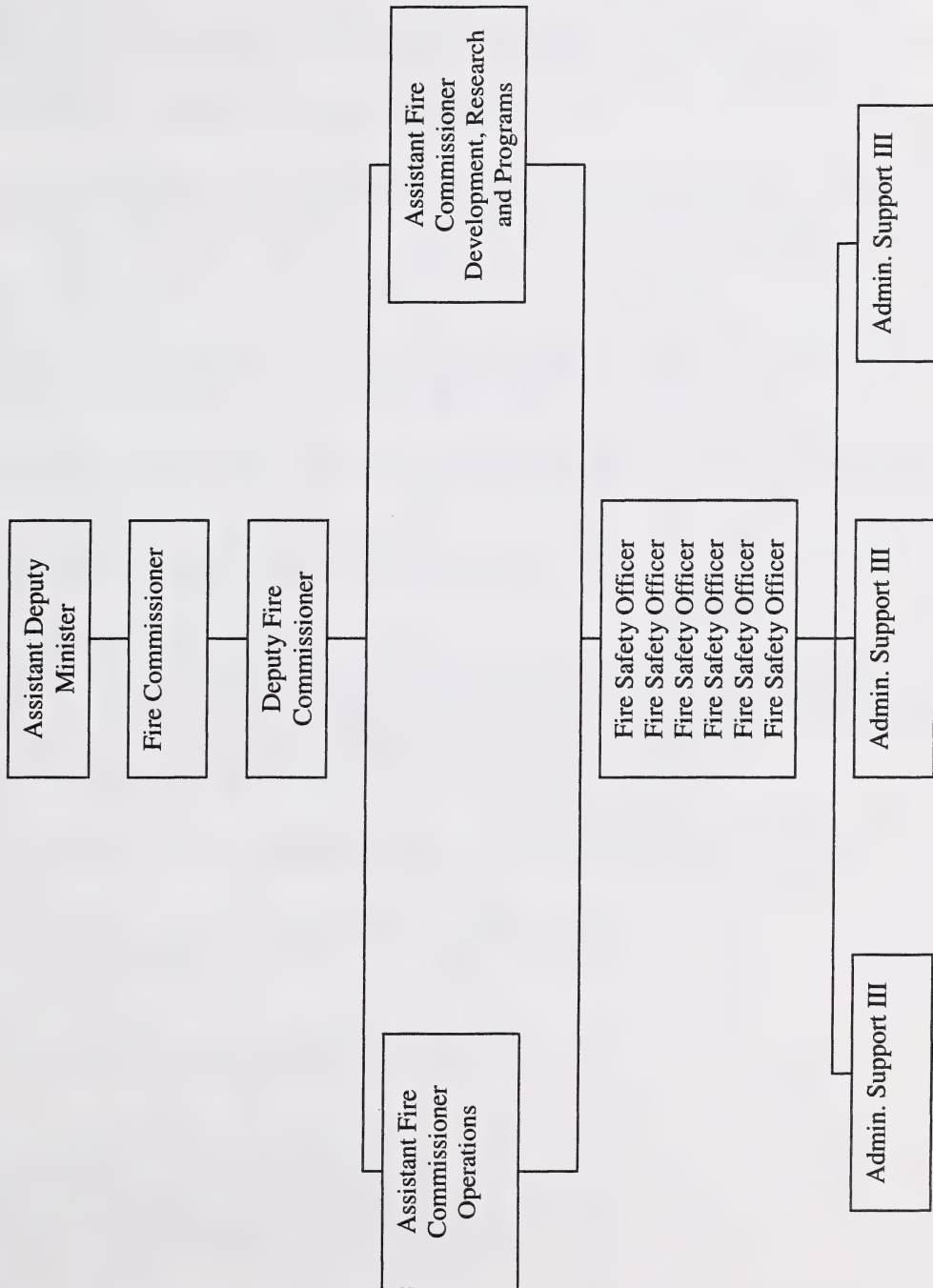
Calgary Office – Phone: (403) 297-5759  
Fax: (403) 297-4174

Lethbridge Office – Phone: (403) 382-4555  
Fax: (403) 382-4426

## ALBERTA MUNICIPAL AFFAIRS- FIRE COMMISSIONER'S OFFICE

OFFICE	NAME	ADDRESS	PHONE/FAX NUMBER	ADMIN. STAFF
Edmonton	Pat Graham Fire Commissioner (780-427-8392) cell: (780) 777-0396	11 <sup>th</sup> Fl., Commerce Place 10155-102 Street Edmonton, AB T5J 4L4	780-427-8392 Fax: 780-427-5898	Sarah Barter (780-415-0547)
	Mahendra Wijayasinghe Assistant Fire Commissioner (780-415-0546) cell: (780) 777-0401			Gloria Mercer (780-415-0548)
	Ernie Polsom Assistant Fire Commissioner (780-415-0549) cell: (780) 699-0630			Neelu Jairath (780-415-0502)
	Ed Pomerleau Fire Safety Officer (780-427-4854) cell: (780) 777-0403			
Calgary	George Hands Fire Safety Officer (403-297-5798) cell: (403) 333-0580	Elveden Centre, 7th Floor 727-7 Avenue, S.W. T2P 0Z5	403-297-5759 Fax: 403-297-4174	
Lethbridge	Kevan Jess Fire Safety Officer (403-381-5483) cell: (403) 634-0161	360 Provincial Building 200-5 Avenue, S. T1J 4C7	403-382-4555 Fax: 403-382-4426	
Red Deer	Frank Harris Fire Safety Officer (403-340-4987) cell: (403) 588-2277  Tom O'Gorman Fire Safety Officer (403-340-5162) cell: (403) 588-2278	207 Provincial Building 4920-51 Street T4N 6K8	403-340-5157 Fax: 403-340-5210	
Peace River	Ross Bennett Fire Safety Officer (780-624-6303) cell: (780) 625-8049	Bag 900, Box 24 9621-96 Avenue T8S 1T4	780-624-6163 Fax: 780-624-6552	

## FIRE COMMISSIONER'S ORGANIZATION CHART



## **FIRE COMMISSIONER'S OFFICE**

### **VISION**

Continued improvement and sustainability of our province's emergency services stressing cooperative fire protection initiatives and the establishment of effective service and training levels and standards.

### **MISSION**

The Fire Commissioner's Office will work in partnership with municipalities, other government branches and departments, service providers, local authorities and organizations whose focus is directed on assisting in the provision of a safe environment for the citizens of Alberta.

### **LINKS TO THE GOVERNMENT BUSINESS PLAN**

The Fire Commissioner's Office supports the Government's three core businesses in these ways:

1. assisting Albertans to be safe and self reliant through safety education and emergency preparedness services.
2. encouraging local government and service providers to develop, provide and sustain the best level of service possible.
3. supporting the traditions, efforts and education programs of service providers and encouraging them to meet the challenges and priorities of building and sustaining safe communities.

The fore going is linked to the Alberta Government Business Plan goals #15, 17, and 19.

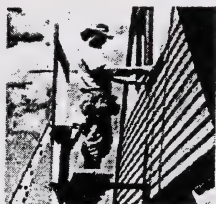
- Goal #15 – Alberta will be a safe place to live and raise families.
- Goal #17 – The high quality of Alberta's environment will be maintained.
- Goal #19 – Work in partnership with local governments to promote healthy and sustainable communities.

### **FIRE COMMISSIONER'S OFFICE CORE BUSINESSES**

- Providing support, encouragement and expertise to the Fire Service in achieving sustainable and acceptable service levels and safety related programs and initiatives.
- Establish public education programs that are results oriented and address the three critical areas (home, children and seniors), and the work place. Develop these programs so that they can be tailored to fit aboriginal applications.
- Working with the Alberta Fire Training School to provide assistance, support and encouragement to municipal sector fire services as they develop and promote a training standard that is flexible enough to be tailored to specific areas and needs.

### **STAKEHOLDERS**

The Fire Commissioner's Office will continue to work with identified stakeholders (municipalities, Children and Youth Services, Alberta Education) and develop links with other associations and organizations (AFTS, IFMA, CAFC) who have legitimate related interests.



## Safety Services

Safety Services is responsible for the administration of the Safety Codes Act in nine discipline areas.

The Codes, Standards and Regulations governing the nine areas covered by our mandate are:

• Amusement Rides	• Fire
• Boilers and Pressure Vessels	• Gas (Natural Gas and propane including vehicle conversions)
• Building	• Passenger Ropeways (ski lifts)
• Electrical	• Plumbing (including private sewerage)
• Elevators	

### Publications and Bulletins

#### Pine Shakes Information

Standata Index (includes Building, Electrical, Fire, Gas Safety and Plumbing) for 1997 and 1990

#### Standata Updates and Bulletins

##### Legislative and Regulatory Amendments

##### Building Codes

- Information Bulletins
- Directors' Interpretations
- Director's Rulings

##### Electrical Standata (pdf files)

- Electrical Safety Information Bulletin LEG-ECR-2
- Electrical Safety Information Bulletin CEC-28
- Electrical Safety Information Bulletin CEC-g1
- Electrical Safety Information Bulletin ECUC-g1
- Electrical Safety Information Bulletin CEC-22
- Electrical Safety Information Bulletin CEC-2
- Record of Updates

##### Fire Safety Information and Standata (pdf files)

- Fire Code Bulletins - Updated Index Page

**ABOA (Alberta Building Officials Association)**

The ABOA is a non profit association created to promote the use and understanding of building codes and standards and to demonstrate the effectiveness of code enforcement by municipalities. ABOA recognizes the important role Safety Codes Officers play in enforcing the Alberta Building Code.

PO Box 4766 Edmonton, Alberta T6E 5G6

780 415 0507 Telephone

780 422 7205 Fax

[paul.mousseau@ma.gov.ab.ca](mailto:paul.mousseau@ma.gov.ab.ca) Email

[www.aboa.ab.ca](http://www.aboa.ab.ca) Web Site

**ADS (Alberta Disaster Services)**

Disaster Services ensures Alberta's communities are prepared to respond effectively to disasters and emergencies by developing and coordinating an overall provincial program of preparedness for, response to and recovery from major emergencies and disasters. Assisting municipalities, industry and First Nation communities to develop and maintain a high level of emergency preparedness. Coordinating the provincial response activities during a major emergency or disaster. Working with federal and provincial government departments and non-government organizations to develop and maintain a wide range of provincial emergency response plans. Managing disaster recovery programs that help Albertans recover from the adverse affects of a disastrous event.

Municipal Affairs Disaster Services Branch 4999 – 98<sup>th</sup> Avenue Edmonton, Alberta T6B 2X3

780 422 9000 Telephone

780 422 1549 Fax

[www.gov.ab.ca/ma/diaster](http://www.gov.ab.ca/ma/diaster) Web Site

**AFCA (Alberta Fire Chiefs Association)**

The mission of the Alberta Fire Chiefs Association is to promote, support and facilitate fire protection and related emergency services.

780 415 8300 Telephone

780 415 8400 Telephone

780 437 0982 Telephone (Head Office)

780 437 9742 Fax

[abchiefs@telusplanet.net](mailto:abchiefs@telusplanet.net) Email

**AUMA (Alberta Urban Municipalities Association)**

Provides leadership in advocating local government interests to the provincial government and other organizations, and will provide services that address the needs of its membership.

8712 105 Street, Edmonton. Alberta, T6E 5V9

800 661 2862 (toll free)

780 433 4431 Telephone

708 433 4454 Fax

[main@auma.ab.ca](mailto:main@auma.ab.ca) Email

[www.munilink.net/main/home.htm](http://www.munilink.net/main/home.htm) Web Site

**CAFC (Canadian Association of Fire Chiefs)**

A Canada wide association which meets in conference annually. Distributes educational material and is an excellent source for information on fire department administration and operations. May be used as an information exchange and source for fire prevention promotion and material.

[www.caafc.ca](http://www.caafc.ca) Web Site

**CGSB (Canadian General Standards Board)**

CGSB is engaged in the production of voluntary standards in a wide range of subject areas through the media of standards committees and the consensus process. The standards committees are composed of representatives of relevant interests including producers, consumers and other users, retailers, government, educational institutions, technical, professional and trade societies, and research and testing organizations. Any given standard is developed on the consensus of views expressed by such representatives.

Standardization Information Board, Canadian General Standards Board, Ottawa, Ontario,  
K1A 1G6

[www.pwgsc.gc.ca/cgsb](http://www.pwgsc.gc.ca/cgsb) Web Site

**CSA (Canadian Standards Association)**

CSA is an independent, not for profit, standards writing, certification, testing and inspection organization. The Association provides an open forum for the public, governments and business to voluntarily reach agreement through the consensus process on the criteria that best meets the community interest for materials, products, structures and services in a wide variety of fields.

Canadian Standards Association 178 Rexdale Boulevard, Etobicoke, Ontario M9W 1R3

800 463 6727 Telephone (Toll Free)

416 747 4000 Telephone

416 747 4149 Fax

[certinfo@csa-international.org](mailto:certinfo@csa-international.org) Email

[www.csa-international.org](http://www.csa-international.org) Web Site

**FIPRECAN (Fire Prevention Canada)**

A non share non profit corporation sponsored by the Canadian Association of Fire Chiefs and the Association of Canadian Fire Marshals and Fire Commissioners which produces fire prevention material.

Fire Prevention Canada, 1066 Somerset Street West Suite 301, Ottawa, Ontario H1Y 4T3

[www.cafc.ca/fipreca.html](http://www.cafc.ca/fipreca.html) Web Site

**IAAI (International Association of Arson Investigators)**

Active membership in the IAAI is open to any representative of government or of a governmental agency, and any representative of a business or industrial concern who is actively engaged in some phase of the suppression of arson. And whose qualifications meet the requirements of the membership committee of the association.

12770 Boenker Road, St. Louis, Missouri, 63044

314 739 4224 Telephone

314 739 4219 Fax

[www.fire-investigator.org](http://www.fire-investigator.org) Web Site

**IAO (Insurers' Advisory Organization)**

IAO's mission is to provide top quality risk information to the insurance and risk management industry and to others who manage insurance functions across Canada. Our customers include underwriters, brokers, captives, self-insurers and risk managers in government organizations and large corporations.

[www.iao.ca](http://www.iao.ca) Web Site

**IFSTA (International Fire Service Training Organization)**

IFSTA is a nonprofit educational association of fire fighting personnel who are dedicated to upgrading fire fighting techniques and safety through training. IFSTA's purpose is to validate training materials for publication. Develop training materials for publication. Check proposed rough drafts for errors. Add new techniques and developments. Delete obsolete and outmoded methods.

930 North Willis, Stillwater, Oklahoma 74078-8045

405 744 5723 Telephone

405 744 8204 Fax

[www.ifsta.org](http://www.ifsta.org) Web Site

**ISFSI (International Society of Fire Service Instructors)**

The International Society of Fire Service Instructors is renowned for the training and educational programs provided for instructors and training personnel in the fire and emergency response community.

PO Box 2320, Stafford, Virginia 22555-2320, USA

540 657 9375 Telephone

540 657 0154 Fax

[info@isfsi.org](mailto:info@isfsi.org) Email

[www.isfsi.org](http://www.isfsi.org) Web Site

**NFPA (National Fire Protection Association)**

NFPA is a worldwide leader in providing fire, electrical and life safety to the public. The mission of the international, non-profit, member organization is to reduce the world wide burden of fire and other hazards on the quality of life by developing and advocating scientifically based consensus codes and standards, research, training, and education.

1 Batterymarch Park, PO Box 9101, Quincy, Massachusetts 02269-9101

617 770 3000 Telephone

617 770 0700 Fax

[www.nfpa.org](http://www.nfpa.org) Web Site

**NRC (National Research Council)**

The NRC's mission is to support national science and engineering activities, perform and stimulate investment in research and development, and develop vital expertise and knowledge. This organization publishes the National Fire and Building Code.

[www.nrc.ca](http://www.nrc.ca) Web Site

**OH&S (Occupational Health and Safety)****The Safety Codes Council****The Standards Council of Canada**

The standards council of Canada is the coordinating focal point of the National Standards System, a federation of independent, autonomous organizations accredited by the council in the fields of standards writing, testing and certification.

45 O'Connor Street, Suite 1200, Ottawa, Ontario K1P 6N7

**ULC (Underwriters' Laboratories of Canada)**

A Canadian safety, certification, testing, quality registration, and standards development organization dedicated entirely to the protection of life and property. ULC is a not for profit organization which exists for the purpose of investigating devices and materials as to their relation to life, fire or accident hazards, or their value in crime prevention, and to providing authoritative information to inspection authorities.

7 Crouse Road, Scarborough, Ontario M1R 3A9

[www.ulc.ca](http://www.ulc.ca) Web Site

**WCB (Workers Compensation Board)**



Workers'  
Compensation  
Board  
Alberta

*Albertans working – a safe, healthy and strong Alberta*

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The Workers' Compensation Board - Alberta is a not-for-profit mutual insurance corporation funded entirely by employers. The WCB provides cost effective workplace liability and disability insurance to more than one million workers and 90,000 employers.



Workers'  
Compensation  
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Policy

Workers' compensation is a disability insurance system set up under the Alberta Workers' Compensation Act that protects both employers and workers against the impact of work injuries. It compensates injured workers for lost income, health care and other costs related to a work related injury. It protects employers from being sued by workers if they are injured on the job. This system brings stability and protection to the workplace by providing coverage at a cost shared by all employers. It also protects employers and workers against the risks and expenses of injury and the uncertainties of litigation.

In Alberta, the Workers' Compensation Board (WCB) is an independent organization that manages the worker's compensation insurance business based on legislation, the Workers' Compensation Act and regulations. The WCB is NOT a provincial government department or agency. The WCB is an employer-funded organization providing cost-effective disability and liability insurance for more than 87,000 employers and approximately one million workers in Alberta.

The Workers' Compensation Act was the result of an historic agreement between labour and business based on the Meredith Principle. Employers agreed to fund the program. In exchange, workers gave up the right to sue their employer for the impact of work related injuries.

The WCBs responsibility is to provide high quality service to both employers and injured workers and fair compensation. Employers, workers and health care providers also have responsibilities in helping the system to work effectively.

The WCB must:

- provide injured workers with clear information in a timely manner.
- provide injured workers with effective compensation and rehabilitation services to help them return to some type of employment.
- work with injured workers, employers and labour organizations to promote injury prevention and develop effective disability management services.
- maintain sound financial and administrative management as a

business.

Distributed: January 15, 1998

Revised: July 14, 1999

Reviewed: January 15, 1999

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reserved.*

# **Basic Fire Department Requirements**



# **BASIC FIRE DEPARTMENT REQUIREMENTS**

## **Communications**

There will be a need for public reporting, dispatching, telephone and two way radio systems that will fulfill the following functions:

- receiving the fire alarm or emergency call from the public,
- notifying fire fighters and other interested agencies of an incident,
- communication on the fireground between fire fighters and or the dispatch center.

The alarm should be received on a dedicated line for fire emergencies only.

The alarm can be received at a central 24 hour answering service, or through radio telephones carried by fire fighters.

The department must quickly dispatch fire fighters and apparatus by using the following methods:

- sirens
- air horns
- telephone fan-out system; or
- pagers

Once at the scene, fire fighters may need to talk to each other, the fire apparatus or the dispatch center. There will be a need for portable radios and mobile radios in apparatus.

A radio frequency will be required from Communications Canada for the fire department use.

## **Mutual Aid Agreements**

Legal mutual aid agreements should be entered into with neighboring communities and with the appropriate government agencies. This can provide additional resources in the event of a major emergency.

Mutual aid plans establish procedures for requesting and dispatching help between fire departments so that each party will know what is expected.

Mutual aid plans may include the following functions:

- immediate joint response of several fire departments to high risk properties
- joint response to alarms adjacent to the boundaries between fire department areas
- coverage of vacated territories by outside departments when the resources of the local department are engaged
- provision of additional units to assist at major fires that may be too large for the local department to handle
- provision of specialized types of fire fighting equipment not available locally in adequate quantity for the particular incident

Mutual aid plans should also include Operational Guidelines, interdepartmental communications, common terminology, maps and other considerations that directly affect the department's ability to operate effectively.

It is essential that inter-agency training is done to familiarize each participant with equipment compatibility and how each organization functions. This will ensure smoother operation in an emergency operation.

Command responsibility, jurisdictional questions, insurance coverage and legal constraints should be covered in written agreements supported by enabling legislation to properly establish mutual aid systems for the participating department and agencies.

Adequate manpower and equipment are needed in order for any department to help and support another jurisdiction.

## **Operational Guidelines**

In order for a fire department to function effectively it must be organized so that all members are working in a coordinated effort to accomplish the objectives and requirements of the department.

The fire department should develop and implement an Operational Guidelines Manual which should include but not be limited to the following procedures:

- training
- safety
- operations
- personal protective equipment
- equipment safety and maintenance
- special operations
- dangerous goods
- work site safety
- respiratory protection program

The Regional Offices of the Fire Commissioner can supply Operational Guideline samples of pre-written guidelines that will aid any department in forming their own set of guidelines.

These procedures will enhance employee safety, minimize public risk from fire department operations, increase operational effectiveness and protect fire department assets from possible loss.

The Operational Guidelines should be kept in a binder readily available for each member to read.

Maintaining a very comprehensive Operational Guidelines Manual will reduce the risk of liability claims against the fire department.

## **Pre-Fire Planning**

Pre-fire planning is preparing a course of action to follow against a possible fire. This process will prepare a fire department for an emergency before it happens, by providing basic information about specific areas and or buildings.

Pre-planning may involve generalized planning or disaster planning for fire, transportation or medical emergencies that may occur in the fire protection service area.

Any building or area with a high risk to life or property should be pre-planned.

Consideration should also be given to properties with particular problems of exposures, such as large structures with little or no fire resistive properties, lack of water and poor fire department access particularly in the winter and the spring.

Fuel storage and propane storage tanks present special hazards in a rural setting.

A common format for pre-plans is an 8.5 x 11 inch sheet with a scale drawing of the building. The following information is then collected:

- exposure hazards
- water main sizes
- hydrant location
- alternate source of water supply
- total water available
- street name, address
- location of power lines
- location of utilities shut-offs – power, gas, water
- name, telephone number of owner/occupier
- storage of hazardous materials
- location and type of fire protection equipment
- fire safety plans
- fire department access

The drawing should include wall and roof construction, stairwells, elevators, sprinkler systems, alarm systems, door and window locations.

Ultimately the plan is used to assist the fire department to safely address an incident.

The plan should indicate general initial attack positions of responding apparatus, highlighted water sources and necessary hose evolutions.

Complete plans must be available to those who will use them on the fireground. The plans are a great training tool. All plans should be kept current. It is good practice to keep copies of pre-plans in all first line apparatus and in the fire station.

## **Records and Reports**

A record system should be established to provide the fire chief and officers with accurate, up-to-date information of all fire department activities including:

- financial
- general
- personnel
- water supplies
- training
- attendance
- apparatus maintenance
- equipment maintenance
- public relations and education
- fire prevention and inspections
- fire incidents and investigations
- operational guidelines

## **Reference and Technical Library**

An up-to-date library with reference materials and Codes, can provide guidance and knowledge to fire department personnel.

The following current manuals should be included:

- Safety Codes Act
- Alberta Fire Code
- Alberta Building Code
- W.C.B. Industrial Health and Safety Regulations
- NFPA Fire Protection Handbook
- applicable NFPA Standards
- Alberta Fire Training School course schedule
- assorted fire trade periodicals
- International Fire Service Training Association (IFSTA) manuals

## **Water Supplies**

A reliable and adequate water supply for firefighting is an essential part of the fire protection system.

Water must be available to replenish water tank trucks during and after training and/or at fires.

This supply can come from hydrants in the community or from natural or man-made sources.

A study should be undertaken to determine the reliability of these water supplies during dry periods and cold weather.

Methods should be devised wherein all natural water sources in the fire protection area can be used at any time of the year. This would entail providing year round access with secure right-of-ways and providing dry hydrants.

A formal agreement for the maintenance and upkeep of fire hydrants on the water system should be in place between the fire and water authority (Appendix 4 is a sample of a Fire Hydrant Maintenance Agreement).

The agreement is based on the principal that the local government agency responsible for the water system should retain responsibility for maintaining the hydrants. There are reasons that the local fire authority might be willing to pay all or part of the cost for maintaining them.

The reasoning behind this principle, is that the water authority:

1. Owns the entire water system on which the hydrants are located;
2. Controls the design of the water system and the location of hydrants;
3. Has the regulations requiring developers to install hydrants;
4. Has the staff who is knowledgeable about maintaining water system components and the necessary equipment;
5. Also uses the hydrants to flush their water mains.

The fire department wants assurances that the hydrants will be in proper operating order when they are needed in an emergency.

Upgrades or replacements are generally picked up as part of the water authority's annual upgrading and maintenance program in conjunction with the Fire Department's recommendations, but within the financial capacity of the community.

A written agreement should be drawn up for maintenance and use of any private water systems.

### **Wildfire Threats to Urban Interface Areas**

Rural areas are becoming increasingly popular as outstanding locations for both seasonal and permanent residences.

A bylaw should be established to control vegetation and construction methods in urban interface areas. Alberta Sustainable Resources has a manual called "Fire Smart: Protecting your Home from Wildfire". This manual can assist residents in the interface area with many good recommendations on safety.

Public and private education will lessen the risk of wildland/urban interface fires. An increased awareness and homeowner involvement will ensure greater safety in this area (see Appendix 3 references).



# **Appendix 1**



## **APPENDIX 1**

### **Fire Department Bylaws and Orders**

The fire bylaw is an enabling piece of legislation which gives the local government elected body (Council or Board) the authority to create a fire department, and gives the authority for the fire department to function under.

One area covered under this bylaw is the authority to enter a premises; there are a number of fire departments in Alberta that do not have this identified in their bylaws and if a legal entanglement were to evolve out of a fire incident the fire department could theoretically be charged with trespass, and possible subrogation by an insurance company for damage.

The bylaw gives the authority for the Fire Chief to set out the rules, regulations and orders for the organization, administration and operation of the fire department. These are normally referred to as Fire Department Standing Orders.

Although all the functions outlines are necessary for the efficient operation of a large fire department, the same number of divisions may not be required to carry out the efficient operation of smaller or volunteer fire department.

Some of the functions, therefore, may be deleted or consolidated according to the requirements of the particular local government body.

The bylaw has been designed essentially for enactment by incorporated local government bodies. With the agreement of their legal advisor, it may be equally applied to any areas or fire districts as defined by the appropriate bylaws or legislation.

**TOWN OF RUBBERBOOT**

**BYLAW NO. \_\_\_\_\_**

**A BYLAW OF THE TOWN OF RUBBERBOOT IN THE PROVINCE OF ALBERTA, TO PROVIDE FOR THE ESTABLISHMENT AND OPERATION OF FIRE PROTECTION SERVICES**

WHEREAS the Municipal Government Act, S.A. 1994 C.M.-26. I as amended, provides that the Council of a Town may pass a Bylaw for the safety, health and welfare of people, and the protection of people and property, and for services provided by or on behalf of the Town;

AND WHEREAS the Council of the Town of Rubberboot wishes to establish a fire service within the Town and to provide for the efficient operation of such a fire service.

AND WHEREAS the Council of the Town of Rubberboot wishes to regulate the use and setting of fires;

NOW THEREFORE, the Council of the Town of Rubberboot duly assembles, enacts as follows:

**SECTION 1            NAME OF BYLAW**

1.1            This Bylaw may be cited as the "Fire Bylaw".

**SECTION 2            DEFINITIONS**

2.1            In this Bylaw:

- (a) "Apparatus" means any vehicle provided with machinery, devices, equipment or materials for fire fighting as well as vehicles used to transport fire fighters or supplies.
- (b) "Council" means the Council of the Town of Rubberboot.
- (c) "Dangerous Goods Product" means those products or substances which are regulated by the *Transportation of Dangerous Goods Act* and its *Regulations*..

- (d) "Designated Officer" means a Designated Officer of the Town whose authority includes inspections or enforcement of the Town's Bylaws and includes Town Manager.
- (e) "Director of Protective Services" means the Member appointed as head of the Fire Department who is also a Safety Codes Officer pursuant to the *Safety Codes Act* and includes any person designated in his absence.
- (f) "Equipment" means any tools, contrivances, devices or materials used by the Fire Department to combat an Incident or other emergency.
- (g) "False Alarm" means any notification to the Fire Department or Member respecting the existence of a condition, circumstance or event containing an imminent serious danger to life or Property wherein such a condition, circumstance or event is in fact not in existence.
- (h) "Fire" means any combustible material in a state of combustion.
- (i) "Fireworks" means *fireworks* as defined in the Alberta Fire Code 1997.
- (j) "Fire Department" means the department established by this Bylaw and includes any person duly appointed to the Fire Department by Council or the Director of Protective Services.
- (k) "Fire Department Property" means all property owned or controlled by the Town and designated for use by the Fire Department, regardless of the source of the property.
- (l) "Fire Hazard" means any condition, circumstance or event wherein the possibility of Fire is increased.
- (m) "Fire Permit" means a document issued pursuant to this Bylaw, on a form adopted by the Council as set out in Schedule A, B or C as the case may require.
- (n) "Fire Pits" means a burning device to burn combustible material as described in the attachment to Schedule B.
- (o) "Fire Protection" means all aspects of Fire safety including but not limited to Fire prevention, fire fighting or suppression, pre-fire planning, Fire investigation, public education and

information, rescue, dangerous goods response training or other staff development and advising.

- (p) "Fire Protection Charge" means any or all costs incurred by the Fire Department in providing Fire Protection.
- (q) "Illegal Fire" means any Fire which is in contravention of this Bylaw.
- (r) "Incident" means a Fire or situation where an explosion is imminent or other situation where there is a danger or possible danger to life or Property and to which the Fire Department has responded.
- (s) "Manager of Fire and Rescue Services" means the individual appointed as the Manager of Fire and Rescue Services who also is a Safety Codes Officer pursuant to the *Safety Codes Act*.
- (t) "Member" means any person who is a duly appointed member of the Fire Department, including a part-time member or Officer, and includes the Director or Protective Services and manager of Fire and Rescue Services.
- (u) "Officer" means a Member appointed as a Deputy Fire Chief.
- (v) "Open Air Fire" means any Fire not contained within a building or structure and shall include Fire involving humus soil, piles of coal, farm produce, waste, bush, grass, seed, straw or any Fire that has escaped or spread from a building, structure, machine or vehicle and any Fire set for the purpose of thawing frozen ground or clearing land.
- (w) "Peace Officer" means Peace Officer as defined in *Provincial Offences Procedure Act*.
- (x) "Property" means any real or personal property which, without limiting the generality of the foregoing, includes land and structures.
- (y) "Running Fire" means a Fire burning without being under proper or any control of any person.
- (z) "Storage Tanks" means *Storage Tanks* as defined in the Alberta Fire Code 1997.
- (aa) "Town" means the Municipal Corporation of the Town of Rubberboot in the Province of Alberta and, where the

contest requires, means all land situated within the corporate boundaries of the Town.

- (bb) "Town Manager" means the individual appointed by Council to the position of Chief Administrative Officer of the Town.

**SECTION 3**

**FIRE SERVICE**

- 3.1 The Council hereby establishes the Fire Department or the purpose of:
- (a) preventing and extinguishing Fires;
  - (b) investigating the cause of Fires;
  - (c) preserving life and property and protecting persons and property from injury or destruction by Fire;
  - (d) providing rescue services;
  - (e) preventing, combating and controlling emergency Incidents;
  - (f) carrying out Fire inspections and prevention patrols;
  - (g) fulfilling approved agreement with other municipalities or persons with respect to fire protection;
  - (h) operating Apparatus and Equipment for extinguishing Fires or preserving life and Property; and
  - (i) Mitigating Incidents relating to Dangerous Good Products; and
  - (j) otherwise providing Fire Protection Services.

**SECTION 4**

**DIRECTOR OF PROTECTIVE SERVICES**

- 4.1 The Director of Protective Services shall be appointed by the Town Manager.
- 4.2 The Director of Protective Services shall report to the Town Manager.

- 4.3 The Director of Protective Services shall have complete responsibility and authority over the Fire Department, subject to the direction of Council and the Town Manager and shall prescribe rules, regulations and procedures for the ongoing organization and administration of the Fire Department, including but not limited to:
- (a) the use, care and protection of Fire Department Property;
  - (b) the appointment, recruitment, conduct, discipline, duties and responsibilities of the Members of the Fire Department;
  - (c) the efficient operation of the Fire Department.
  - (d) other duties and responsibilities as assigned in job description.
- 4.4 Regulations, rules or standard operating procedures made pursuant to this Bylaw shall not be inconsistent with the laws of the Province of Alberta
- 4.5 The Director of Protective Services shall:
- (a) within budget approval and in accordance with any relevant policies, purchase or otherwise acquire Equipment, Apparatus, materials or supplies required for the operation, maintenance and administration of the Fire Department to be used in connection therewith;
  - (b) keep or cause to be kept, in proper form, records of all business transactions of the Fire Department, including the purchase or acquisition of Equipment, Apparatus, materials or supplies and records of Fires attended, actions taken in extinguishing Fires, inspections carried out and actions taken on account of inspections or any other records incidental to the operation of the Fire Department;
- 4.6 The Director of Protective Services, or in his or her absence, the senior Member present who is also a Safety Codes Officer pursuant to the *Safety Codes Act* (hereinafter referred to as the "Member in charge") shall have control, direction and management of any Fire Department Apparatus, Equipment or manpower, assigned to an Incident and, where a Member is in charge, he or she shall continue to act until relieved by the Director of Protective Services or the Manager of Fire and Rescue Services.
- 4.7 The Director of Protective Services or Member in charge may, at an Incident, at his or her discretion, establish perimeters and keep

persons from entering the area within the prescribed boundaries or limits unless authorized to enter by him or her.

- 4.8 The Director of Protective Services or Member in charge may request Peace Officers to enforce restrictions on persons entering within the boundaries of limits outlined in Section 4.7.
- 4.9 The Director of Protective Services or Member in charge, at an Incident, is empowered to enter private property and to take all steps he or she thinks necessary in order to directly or indirectly combat, control or deal with an Incident, including, but not limited to:
- (a) pass through or over buildings or Property whether adjacent or otherwise, to an Incident and remain in or on the building or Property and to cause Members of the Fire Department and the Apparatus and Equipment of the Fire Department to enter or pass through or over the building or Property and remain in or on to the building or Property;
  - (b) cause the building, structure or thing to be wholly or partially pulled down, demolished, modified or otherwise removed.
- 4.10 The limits of the jurisdiction of the Director of Protective Services, Manager of Fire and Rescue, Officers and Members of the Fire Department will extend to the area and boundaries of the Town of Rubberboot and no part of the fire Apparatus shall be used beyond the limits of the Town unless a written agreement is in place for supplying Fire Protection Services outside the Town of Rubberboot.
- 4.11 The Director of Protective Services, and anyone acting in his absence, is hereby authorized to take whatever action he or she deems appropriate in the event that an emergency situation or emergency circumstance arises that is not provided for in this Bylaw. In the event that the Director, or anyone acting in his absence, takes action under this clause, the action taken shall be limited to those steps necessary to bring the emergency situation or emergency circumstance under control. Anyone taking action under this clause shall make a full report of the particulars to the Town Manager within 24 hours of the commencement of the action taken.

## **SECTION 5**

### **POWERS OF FIRE MEMBERS**

- 5.1 Each Member shall have the authority and power to:
- (a) perform work relating to the extinguishing or controlling of the Fire or the operations to preserve life and Property and enter onto any Property for the purpose of extinguishing or

controlling the fire, at the discretion of the Director of Protective Services;

- (b) prevent interference with the efforts of persons engaged in the extinguishing of Fires or preventing the spread thereof by regulating the conduct of the public at or in the vicinity of any fire;

## SECTION 6

### POWERS OF OFFICERS

- 6.1 Officers in charge of an Incident shall have the authority and power to:
  - (a) commandeer the use of any Equipment for the purposes of fighting the Fire or for the purpose of preserving life or property.
  - (b) perform work relating to the extinguishing or controlling the fire or the operations to preserve life and Property and enter onto any Property for the purpose of extinguishing or controlling the Fire;
  - (c) prevent interference with the efforts of persons engaged in the extinguishing of Fires or preventing the spread thereof by regulating the conduct of the public at or in the vicinity of any fire.

## SECTION 7

### FIRE PROTECTION CHARGES

- 7.1 Upon providing Fire Protection on Property within or outside the Town's boundaries, the Town in its sole and absolute discretion may charge:
  - (a) the person causing or contributing to the Fire; or
  - (b) the owner or occupant of the Property;

a Fire Protection Charge, and all individuals charged are jointly and severally responsible for the Fire Protection Charge;
- 7.2 The schedule of fees for fire Protection Charges shall be as set out in Bylaw 97/24 or any amendments thereto or replacements thereof.
- 7.3 Fire protection Charges shall be paid within 30 days of being levied.
- 7.4 Collection of unpaid Fire Protection Charges may be undertaken by civil action in the Court of competent jurisdiction, and any civil

action does not invalidate any lien which the Town is entitled to on the Property in respect of which the indebtedness is incurred.

- 7.5 The owner of a parcel to which Fire Protection is provided is liable for Fire Protection Charges incurred, and the Town may add to the tax roll of the parcel of land all unpaid Fire Protection Charges.

**SECTION 8** **CONTORL OF FIRE HAZARDS**

- 8.1 If the Director of Protective Services finds within the Town boundaries on privately owned land or occupied public land conditions that in his opinion constitute a Fire Hazard he may order the owner or the person in control of the land on which the Fire Hazard exists to reduce or remove the fire Hazard within a fixed time and in a manner prescribed by the Director.
- 8.2 If the Director of Protective Services finds that the order he/she made pursuant to Section 8.1 has not been carried out, a Designated Officer may enter onto the land with any equipment and any person it considers necessary and may perform the work required to eliminate or reduce the Fire Hazard.
- 8.3 The owner or occupant of the land on which work was performed pursuant to section 8.2 shall, upon demand, pay to the Town a Fire Protection Charge, and in default of payment of the Fire Protection Charge, the Town may add the Fire Protection charge to the tax roll of the said land, which forms a special lien against the land in favour of the Town, from the date it was added to the tax roll.

**SECTION 9** **REQUIREMENT TO REPORT**

- 9.1 The owner or occupant of any property damaged by Fire shall immediately report to the Fire Department particulars of the Fire.
- 9.2 The owner or occupant of any Property containing a Dangerous Goods Product which sustains an accidental or unplanned release of dangerous goods shall immediately report to the Fire Department particulars of the release. The owner or occupant of the property shall provide such information regarding the release as the Director of Protective Services may require.

**SECTION 10** **FIRE PERMIT**

- 10.1 (a) No person shall ignite any of the following without first obtaining Fire Permit;

- Open Air Fire;
- Fire Works;
- A fire without a Fire Pit

(b) An application for a Fire Permit shall be made to the Director of Protective Services or, in his absence, the Manager of Fire and Rescue Services in writing on the form adopted from time to time by the Council. The Director of Protective Services or, in his absence, the Manager of Fire and Rescue Services shall receive and consider the application and, after having done so, he or she may, in his or her absolute discretion, issue to the applicant a Fire Permit.

10.2 A Fire Permit is not transferable.

10.3 A person to whom any Fire Permit has been issued under Section 10.1 shall, at all times, keep at least one person over the age of 18 years in place to continuously supervise the Fire or Fireworks. For the purpose of this clause, a Fire shall include, but not be limited to, any hot ashes or smoldering embers resulting from the Fire or Fireworks.

10.4 When issuing any Fire Permit, the Director of Protective Services or, in his absence, the Manager of Fire and Rescue Services may impose conditions considered appropriate.

10.5 Fire Permits issued pursuant to this Bylaw are valid for such period of time as shall be determined and set by the Director of Protective Services or, in his or her absence, the Manager of Fire and Rescue Services and endorsed on the Fire Permit.

10.6 The Director of Protective Services or, in his or her absence, the Manager of Fire and Rescue Services may extend the period of time the Fire Permit is valid, provided the Fire Permit has not expired.

10.7 The Director of Protective Services or, in his or her absence, the Manager of Fire and Rescue Services may, in his or her absolute discretion, suspend or cancel any Fire Permit at any time. A Fire Permit may be suspended or cancelled as follows:

- a) by broadcasting a notice on local radio station CIBQ 1340, or;
- b) by publishing a notice in a newspaper that circulates in the municipality, or
- c) by advising a permit holder in person or by telephone; or;

- d) by delivering a notice by facsimile transmission or by e-mail, or;
- e) by delivering a notice by regular mail.

In the event that notification is provided by radio broadcast, newspaper publication, in person or by telephone, the Director of Protective Services or the Manager of Fire and Rescue Services, as the case may be, shall confirm the notification by delivering a copy by facsimile transmission or by regular mail.

- 10.8 Each application for a Fire Permit must be accompanied by the appropriate fee and must contain information set out in Schedule "A", or "B" or "C" as appropriate.

## **SECTION 11**      **NO SMOKING AREA**

- 11.1 A person may burn smoking material for the purpose of smoking provided that person is not in a designated non-smoking area

- 11.2 No person shall ignite or allow to burn any smoking material in a non-smoking area on Town owned property.

## **SECTION 12**      **OFFENCES**

- 12.1 No person shall:

- (a) contravene any provision(s) of this Bylaw;
- (b) deposit, discard or leave any burning matter or substance where it might ignite other material and cause a Fire;
- (c) provide false, incomplete or misleading information to the Town or the Fire Department on or with respect to a Fire or Fire Permit application;
- (d) impede, obstruct, or hinder a Member of the Fire Department, or other person assisting or acting under the direction of the Director of Protection Services or the Member in charge at any Incident;
- (e) damage or destroy Fire Department Apparatus, Equipment or Fire Department Property without proper authorization;
- (f) falsely represent themselves as a Member or wear or display any Fire Department badge, cap, button, insignia or other paraphernalia for the purpose of such false representation;

- (g) at an Incident drive a vehicle over any Fire Department Apparatus or Equipment without the permission of the Director of Protective Services or the Member in charge;
- (h) obstruct or otherwise interfere with access roads or streets or other approaches to any Incident, Fire hydrant, cistern or body of water designated for fire fighting purposes or any connections provided to a fire main, pipe stand pipe, sprinkler system, cistern or other body of water designated for Fire fighting purposes.
- (i) at an Incident, enter the boundaries or limits of an area prescribed in accordance with Section 4.7 unless he or she has been authorized to enter by the Director of protective Services or the Member in charge;
- (j) obstruct a Member from carrying out any function or activity related in any way to Fire Protection;
- (k) allow an Open Air Fire to be lit, unless that person is the holder of a subsisting Fire Permit or the Fire has been set by a Member for the purpose of training Members;
- (l) have in his or her possession, sell, offer for sale, give away or otherwise distribute, discharge, fire or set off Fireworks unless that person is the holder of a subsisting Fire Permit for the purposes of a Fireworks display or the Fireworks have been set by a Member for the purpose of training members;
- (m) permit a fire to burn when a Fire is set in contravention of Section 10.1 the owner or occupier of the land, or the person having control of the land upon which the Fire is lit shall:
  - (1) extinguish the Fire immediately; or
  - (2) if unable to extinguish the Fire immediately, report the fire to the Fire Department as soon as possible.
- (n) either directly, or indirectly, personally or through an agent, servant or employee kindle a Fire or let it become a Running fire on any land not his or her own property or allowing a Running fire to pass from his or her own property to the property of another;
- (o) light a Fire without first taking sufficient precautions to ensure that the Fire can be kept under control at all times;

- (p) light a Fire when the weather conditions are conducive to create a Running Fire;
- (q) fail to take reasonable steps to control a Fire for the purpose of preventing it from becoming a Running Fire or from spreading onto property other than his or her own;
- (r) conduct an activity that involves the use of fire that might reasonably be expected to be a nuisance or annoyance to a neighbor (close proximity);
- (s) conduct any activity that involves the use of a Fire, where smoke from the Fire will impede visibility of vehicular traffic or pedestrian traffic or pedestrian traffic on any Highway as defined in the Highway Traffic Act, R.S.A. 1980, C.H.-7, as amended;
- (t) light a Fire on lands owned or controlled by the Town except with the Town's express written consent or in specifically designated or approved areas;

## SECTION 13

### PENALTIES

#### 13.1

Any person who:

- (a) violates any provision of this Bylaw;
- (b) suffers or permits any act or thing to be done in contravention of or in violation of any provision of this Bylaw;
- (c) neglects to do or refrains from doing anything required to be done by the provisions of this Bylaw; or
- (d) does any act or thing or omits any act or thing, thus violating any provision of this Bylaw;

is guilty of an offence under the Bylaw, and upon a conviction, is liable to a fine as set out in "Schedule D" of this Bylaw.

## SECTION 14

### LIABILITY

Members are not liable for loss or damage caused by anything said or done or omitted to be done in the performance or intended performance of their functions, duties or powers unless the Member was dishonest, grossly negligent or guilty of willful misconduct.

GENERAL

- 15.1 This Bylaw shall come into force on the date of final passing thereof and upon coming into effect Bylaw Nos. 84 / , 90/ and 90/are repealed.
- 15.2 Should a section or part of this Bylaw be found to be improperly enacted or ultra vires, for any reason, then such section or part shall be regarded as being severable from the Bylaw and the Bylaw remaining after such severance shall be effective and enforceable.
- 15.3 This Bylaw shall come into force and effect on the final date of passing thereof.

READ A FIRST TIME this \_\_\_\_\_ DAY OF \_\_\_\_\_, 2000.

READ A SECOND TIME this \_\_\_\_\_ DAY OF \_\_\_\_\_, 2000.

READ A THIRD TIME AND FINALLY PASSED this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Town Manager

**SCHEDULE "A"**

**APPLICATION FOR A BURNING PERMIT**

BYLAW NO. 2000/

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

ADDRESS OF PROPERTY FOR WHICH APPLICATION IS REQUESTED:

\_\_\_\_\_

This permit is good for the burning of dried wood, leaves or grass only.

\$10.00 Application Fee Paid:    Yes \_\_\_\_\_                      No \_\_\_\_\_

Issue Date: \_\_\_\_\_                      Burn

Date: \_\_\_\_\_

Expiry Date: \_\_\_\_\_

If the following conditions are not adhered to at all times the Burning Permit may be withdrawn and the fire extinguished.

- Size of lot shall be .35 acres or larger.
- Burning piles shall be no closer than 50 feet to a building or structure.
- Burning is restricted to daylight hours.
- Burning is to be supervised at all times.
- A garden hose is to be available to extinguish fire if conditions are such that a fire would become uncontrollable.
- Burning piles shall be no larger than 5 feet in diameter and 2 feet in height.
- Call Fire Department Dispatch –                      before burning.

Signature of Applicant: \_\_\_\_\_

Signature of Issuer: \_\_\_\_\_

Penalties:            Violation of Town of Rubberboot Fire Prevention Bylaw 2000/    could result in a fine up \$100.00

If the Fire Department is called to a property where the fire is out of control the permit holder may be charged a fee for the response.

On signature of this permit by the applicant the Town of Rubberboot is indemnified from any civil or criminal action resulting from damage by fire due to the applicant not adhering to this listed conditions.

**SCHEDULE "B"**

**TOWN OF RUBBERBOOT**

**APPLICATION FOR A PERMIT TO CONSTRUCT AND OPERATE A BURNING DEVICE**

**BYLAW NO. 2000/**

Applicant: \_\_\_\_\_ Phone No. Bus. \_\_\_\_\_

Mailing Address: \_\_\_\_\_ Phone No. Res. \_\_\_\_\_

Address of Property Affected: \_\_\_\_\_

Application for a fire pit \_\_\_\_\_ Approved Device \_\_\_\_\_

Fee Paid: Yes \_\_\_\_\_ No \_\_\_\_\_

**Definitions:**

Approved Device – A device or appliance specifically made for the purpose of containing a fire which bears a proper approval label from the Underwriters Laboratory of Canada, or such other approving agency as designated by the Director of Protective Services. In all cases the device or appliance shall meet the requirements of all legislation, codes and regulations pertaining to such devices or appliances.

Fire Pit – A non-commercial appliance or device used specifically for the purpose of burning combustible materials. See attachment to this Schedule.

No person shall construct, erect, locate or use an approved device or a fire pit within the Town of Rubberboot until a permit has been obtained from the Director of Protective Services. No person shall alter such device for which a permit has been issued without the knowledge of the Director of Protective Services.

A person requiring such a permit shall submit drawings and details to the Director of Protective Services with the application for a permit. Once the permit is approved the applicant shall keep the device in good condition.

A one-time fee of \$20.00 shall be charged with the application for an approved burning device.

**Penalty:**

Any person who contravenes Town of Rubberboot Bylaw 2000/ is guilty of an offense and upon summary conviction liable to imprisonment for a term of not more than six months, or to a fine of up to two hundred (\$200.00) dollars, or to both fine and imprisonment.

\_\_\_\_\_  
Date Permit Issued

\_\_\_\_\_  
Director of Protective Services

**SCHEDULE "C"**

**ALBERTA FIRE CODE  
FIREWORKS DISPLAY PERMIT**

PERMIT NO. \_\_\_\_\_

APPLICANT'S NAME \_\_\_\_\_

ADDRESS: \_\_\_\_\_

REPRESENTING: \_\_\_\_\_

The applicant is hereby authorized to handle, discharge, fire, set-off or display \_\_\_\_\_  
hazard fireworks on \_\_\_\_\_.

Low or high.

\_\_\_\_\_ at \_\_\_\_\_  
(date & time) (specific location where fireworks will be displayed)

within the Province of Alberta.

This permit is subject to cancellation for any breach of the Alberta Fire Code or any of the following conditions and precautions required as a condition of this permit.

CONDITIONS AND PRECAUTIONS: \_\_\_\_\_

A diagram of the discharge/set-off /display site is to be provided on the back of this page.

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Date Signature of Safety Codes Officer Having Jurisdiction

\_\_\_\_\_  
Signature of Applicant Address

\_\_\_\_\_  
\*Fireworks Supervisor's Card No. & Expiry Date

## SCHEDULE "D"

<u>Offense</u>	<u>Penalty</u>	<u>Second or Subsequent Offense Within 1 Yr.</u>	<u>Section Subsection</u>
Deposit, discard or leave any burning matter or substance where it might ignite other material and cause a fire	\$50.00	\$100.00	14.1 (b)
Provide false, incomplete or misleading information to the Town or the Fire Department on or with respect to a Fire or Fire Permit application.	\$100.00	\$200.00	14.1 (c)
Impede, obstruct, or hinder a Member of the Fire Department, or other person assisting or acting under the direction of the Director of Protective or the Member in charge at any Incident.	\$200.00	\$500.00	14.1 (d)
Damage or destroy Fire Department Apparatus, Equipment or Fire Department Property	\$200.00	\$500.00	14.1 (e)
Falsely represent themselves as a Member or wear or display any Fire Department badge, cap, button Insignia or other paraphernalia for the purpose of such false representation.	\$100.00	\$200.00	14.1 (f)
At an Incident drive a vehicle over any Fire Department Apparatus or Equipment without the permission of the Director of Protective Services or the Member in charge	\$200.00	\$500.00	14.1 (g)
Obstruct or otherwise interfere with access roads or streets or other approaches to any Fire Alarm, Fire hydrant, cistern or body of water designated for fire fighting purposes or any connections provided to a fire main, pipe, stand pipe, sprinkler system, cistern or other body of water designated for Fire fighting purposes.	\$200.00	\$500.00	14.1 (h)

<u>Offense</u>	<u>Penalty</u>	<u>Second or Subsequent Offense Within 1 Yr.</u>	<u>Section Subsection</u>
At an Incident, enter the boundaries or limits of an area prescribed in accordance with Section 4.7 unless he or she has been authorized to enter by the Director of Protective Services or the Member in charge.	\$200.00	\$500.00	14.1 (I)
Obstruct a Member from carrying out any function or activity related in any way to Fire Protection.	\$200.00	\$500.00	14.1 (j)
Allow an Open Air Fire to be lit, unless that person is the holder of a subsisting Fire Permit, is the holder of a permit for a fire pit or outdoor fire place or the Fire has been Set by a Member for the purpose of training Members.	\$ 50.00	\$100.00	14.1 (k)
Have in his or her possession, sell, offer for sale, give away or otherwise distribute, discharge , fire or set off Fireworks unless that person is the holder of a subsisting Fire Permit for the purposes of a Fireworks display or the Fireworks have been set by a Member for the purpose of training members	\$50.00	\$100.00	14.1 (l)
When fire is set in contravention of Section 10.1 the owner or occupier of the land, or the person having control of the land upon which the Fire Is lit shall: (1) extinguish the Fire immediately; or (2) if unable to extinguish the Fire immediately, report the fire to the Fire department as soon as possible	\$50.00	\$100.00	14.1 (m)
Either directly, or indirectly, personally or through an agent, servant or employee kindle a Fire or let it become a Running Fire on any land not his or her own property of allowing a Running Fire to pass form his or her own property to the property of another	\$50.00	\$100.00	14.1 (n)

<u>Offense</u>	<u>Penalty</u>	<u>Second or Subsequent Offense Within 1 Yr.</u>	<u>Section Subsection</u>
Light a Fire without first taking sufficient precautions to ensure that the Fire can be kept under control at all times.	\$50.00	\$100.00	14.1 (o)
Light a Fire when the weather conditions are conducive to create a Running Fire.	\$50.00	\$100.00	14.1 (p)
Fail to take a reasonable steps to control a Fire for the purpose of preventing it from becoming a Running Fire or from spreading onto property other than his or her own.	\$50.00	\$100.00	14.1(q)
Conduct an activity that involves the use of Fire that might reasonably be expected to be a nuisance or annoyance to a neighbor.	\$50.00	\$100.00	14.1 (r)
Conduct any activity that involves the use of a Fire, where Smoke from the fire will impede visibility of vehicular traffic and pedestrian traffic on any Highway as defined in the Highway Traffic Act, R.W.A 1980, C.H.-7 as amended	\$100.00	\$200.00	14.1 (s)
Light a Fire on lands owned or controlled by the Town except with the Town's express written consent or in specifically designated or approved areas	\$100.00	\$200.00	14.1 (t)

# **Appendix 2**





# MUNICIPAL DISTRICT OF ROCKY VIEW #44 FIRE DEPARTMENT

## STANDARD OPERATING GUIDELINES

### SUBJECT

Mutual Aid  
Responses

NUMBER SOG 01-014-91

DATE March 15, 1991

Page 1 of 3

#### 1. SCOPE

- 1.1 This standard shall apply to all mutual aid responses within the Municipal District of Rocky View

#### 2. PURPOSE

- 2.1 To establish a systematic and effective procedure during mutual aid operations which will ensure the safety and efficient utilization of responding personnel, apparatus and equipment.

#### 3. POLICY

- 3.1 Fire ground management guidelines in this and applicable SOG's shall be observed when appropriate.
- 3.2 This SOG shall not relieve department personnel of the responsibility of exercising initiative and independent judgement when conditions warrant.

#### 4. RESPONSIBILITY

- 4.1 Each member of the department must understand his/her responsibilities and duties at every incident scene.
- 4.2 Supervising Officers shall ensure that these guidelines are followed.

## 5. PROCEDURE

- 5.1 The Chief Officer in who's area/district the incident occurs shall assume command of the incident scene.
- 5.2 The Chief Officer in command shall set up a command post clearly visible to responding units.
- 5.3 All responding mutual aid units shall report to the command post and receive direction from the on-site commander.
- 5.4 Responding mutual aid personnel shall stay with their apparatus until assigned duty by their own officer.
- 5.5 Personnel on mutual aid assignment shall take their orders/direction from their own department officers only.
- 5.6 Personnel assigned to another Department shall be dispatched in teams of two. This will ensure safety and working compatibility.
- 5.7 No personnel will be teamed with personnel from other departments as a fire fighting partner.
- 5.8 Personnel will remain at their assigned positions until reassigned except as follows:
  - a. an unforeseen danger or situation arises in their position
  - b. it is necessary to effect a rescue or take immediate independent action to mitigate a situation that suddenly arises.
- 5.9 All directional communication from the Command Post shall be passed to personnel via their own command and line officers.
- 5.10 Communication call signs shall be by unit/apparatus number.

## 6. SAFETY

- 6.1 Department officers shall be responsible for the enforcement of safety regulations.

7. APPARATUS AND EQUIPMENT

- 7.1 Department officers shall be responsible for the utilization and retrieval of all equipment owned by their department.
- 7.2 Loss and damage to equipment shall be recorded and reported without delay.
- 7.3 Apparatus and equipment shall be returned to service without delay.

8. TRAINING

- 8.1 The department training programs shall include at least one mutual aid exercise per training year.
9. This SOG shall remain in effect until superseded.



# MUNICIPAL DISTRICT OF ROCKY VIEW #44 FIRE DEPARTMENT

## STANDARD OPERATING GUIDELINES

### SUBJECT

Occupational Health &  
Safety - Fire Department

NUMBER: SOP-04-001-90

DATE: June 14, 1990

Page 1 of 5

#### A. SCOPE

- 1.1 This standard contains the minimum requirements for fire service related safety and health programs.
- 1.2 These requirements are applicable to a fire department providing fire suppression, rescue and other emergency services.

#### 2. PURPOSE

- 2.1 The purpose of this standard is to specify the minimum requirements for a health and safety program for those individuals involved in fire suppression, rescue and related activities.

#### 3. POLICY STATEMENT

- 3.1 It is the policy of the Rocky View Fire Department to establish and identify an occupational health and safety program which will seek to prevent or eliminate on the job accidents, illnesses, injuries or death and which will provide an ongoing effective program for its members.

#### 4. ROLE AND RESPONSIBILITY

- 4.1 It is the responsibility of the Fire Department to provide a safe and healthy work environment for its members. In this end, the Department shall research, develop and implement and enforce any program which recognizes and reduces the risks involved in fire department operations.

- 4.2 The Fire Department shall establish and enforce rules, regulations and standard operating procedures to reach its stated objective.
- 4.3 Each member shall recognize and comply with such rules, regulations and standard operational procedures.
- 4.4 It is the right of each member to participate or be represented in health and safety research or development to this end. A safety committee shall be set up consisting of representatives from each division of the Department.

## 5 SAFETY OFFICER

- 5.1 The Fire Chief shall appoint a Safety Officer for each station or department.

## 6 SAFETY COMMITTEE

- 6.1 The Safety Committee shall serve in an advisory capacity to the Fire Chief. The Committee shall include management and members or their representatives.
- 6.2 The Committee shall research and develop recommendations relating to health and safety.
- 6.3 The Committee shall conduct regular meetings and may hold special meetings when required. Regular meetings shall be held at least 6 times per year.

## 7. RECORDS

- 7.1 The Fire Department shall establish records indicating the activities of the Committee and recording accidents, injury, illnesses or death that are or might be job related.
- 7.2 The Department shall also maintain records relating to the training received by members and of the maintenance, repair and service records of apparatus, tools and equipment.

## 8 TRAINING

- 8.1 Health and Safety procedures shall form part of the department training program.

8.2 The department shall provide training and education for all members to ensure that they are able to perform their assigned duties in a safe manner that does not present a hazard to themselves or to other members.

8.3 All training in this field to be provided by persons qualified to do so.

9. TRAINING FREQUENCY

9.1 Training shall be provided in Safety and Health procedures at least twice per year or as changes in procedures and technology dictate.

10. BASIC TRAINING REQUIREMENT

10.1 All members shall be provided with an acceptable level of basic training appropriate for their duties. No member shall engage in emergency operations prior to successful completion of basic training.

11. SPECIALIZED TRAINING

11.1 Specialized training and education shall be provided to members relating to special hazards to which they may be exposed.

11.2 The Fire Department shall develop written procedures describing the actions to be taken in special situations. These procedures shall form part of the training program.

12. VEHICLES AND EQUIPMENTS

12.1 The Fire Department shall consider health and safety as primary concerns in the specifications, design, construction, acquisition, operation, maintenance, inspection and replacement of all vehicles and equipment.

12.2 Fire Department vehicles shall be operated only by those persons trained to do so.

12.3 All Fire Department vehicles shall be inspected at least weekly and within 24 hours after any use or repair. A preventative maintenance program shall be established and records maintained.

12.4 All fire equipment carried in vehicles shall be visually inspected at least weekly and within 24 hours of any use. Inventory records shall be maintained.

12.5 All equipment shall be tested for safety and useability annually, or when considered necessary.

12.6 All hoses and fire extinguishers shall be tested.

12.7 All ladders shall be inspected and serviced. Tested as specified in NFPA 1932.

13. PROTECTIVE CLOTHING

13.1 The Fire Department shall provide each member with appropriate protective clothing and equipment suitable for the duties that member is expected to perform.

13.2 Protective clothing shall be maintained in good repair and condition.

13.3 Members shall be trained in the use and maintenance of protective clothing and equipment.

13.4 Members shall wear approved protective clothing and equipment at all times when exposed to the hazards associated with fire and emergency response.

14. S.C.B.A.

14.1 SCBA shall be provided for and shall be used by all members working in areas where:

- a) the atmosphere is hazardous
- b) the atmosphere is suspected of being hazardous
- c) the atmosphere may rapidly become hazardous

14.2 The Fire Department shall establish and maintain a maintenance/inspection program for all SCBA equipment.

14.3 Members shall be trained in the proper use of SCBA equipment.

15. ADDITIONAL SAFETY EQUIPMENT

15.1 Members shall utilize eye and face protective equipment when engaged in operations which involve hazards to the eye and face area ie. cutting, grinding and hammering etc. Hearing protection shall be used when the noise level exceeds 90 dBA

## 16 EMERGENCY OPERATIONS

- 16.1 Emergency operations shall be conducted in accordance with SOG's and recognized safe practises.
- 16.2 All emergency incidents shall be adequately supervised at all times by experienced and qualified personnel/officers.
- 16.3 Operations shall be limited to those that can be safely performed by the personnel available at the scene.
- 16.4 When members are working in special hazard areas, they shall work in teams of two (2) or more under the control of an experienced officer.
- 16.5 At all special hazard operations, sufficient back up personnel shall be available in the event of injury or danger to the members performing the operation.

## 17 FACILITY SAFETY

- 17.1 All fire department facilities shall comply with all legal requirements such as health, building, safety and fire codes.
- 17.2 The Fire Department shall establish a maintenance program for all Department buildings and structures.

## 18 MEDICAL

- 18.1 Prior to becoming a member of the Fire Department, personnel shall be required to produce a certificate of health from their physician confirming their fitness to perform fire suppression and emergency response duties.

## ACCIDENT REPORT

### MUNICIPAL DISTRICT OF ROCKY VIEW NO. 44

Date \_\_\_\_\_ Time \_\_\_\_\_

Name \_\_\_\_\_ Age \_\_\_\_\_

Position \_\_\_\_\_

Injury Sustained \_\_\_\_\_

Treatment Given \_\_\_\_\_

Disposition of Case \_\_\_\_\_

Cause of Injury \_\_\_\_\_

What Contributed To Accident \_\_\_\_\_

Protective Equipment Used: - \_\_\_\_\_ Helmet \_\_\_\_\_ Coat \_\_\_\_\_ Boots

\_\_\_\_\_ Gloves \_\_\_\_\_ Goggles \_\_\_\_\_ Full Protective Equipment

\_\_\_\_\_ Hearing Protection \_\_\_\_\_ S.C.B.A. \_\_\_\_\_ None

Explanation \_\_\_\_\_

Witness \_\_\_\_\_ F.A. Attend. \_\_\_\_\_

Patient's Signature \_\_\_\_\_

(Additional comments on back if required)



# MUNICIPAL DISTRICT OF ROCKY VIEW #44 FIRE DEPARTMENT

## STANDARD OPERATING GUIDELINES

### SUBJECT

Critical Incident  
Stress Management

NUMBER: SOG-01-027-99

DATE: July 16, 1999

Page 1 of 5

#### 1. PURPOSE

- 1.1 To establish a program to lessen the psychological impact of Critical Incidents on Fire Fighters.

#### 2. AIM

- 2.1 To provide policy, guidelines and procedures relative to the process known as Critical Incident Stress Debriefing.
- 2.2 To provide professional intervention immediately after critical incidents in order to minimize stress related injury to Fire Service personnel.

#### 3. POLICY

- 3.1 It shall be the policy of the Rocky View Fire Service to initiate the Critical Incident Stress Debriefing process when a specific incident is identified as a critical stress related incident. Such incidents may include, but not limited to the following:
  - a) Death or serious injury of a Fire Service member occurring on or off shift
  - b) Death or serious injury of a Police Officer when Rocky View Fire Service personnel are involved
  - c) Death or services injury of a civilian resulting from Fire Service operations
  - d) Death or serious injury of a child resulting from:
    - i) neglect
    - ii) violence
    - iii) conditions so extreme as to have a lasting effect on Fire Service personnel

- e) An incident that is charged with profound emotion ie. fire personnel placed in danger due to firearms, hostage situation, or threat of physical harm.
- f) An incident where Fire Fighters have been exposed to toxic or unknown chemicals which are likely to have lasting physical or mental side effects.
- g) A situation where an individual feels they must receive assistance.

#### 4. RESPONSIBILITY

- 4.1 The responsibility of the CISD Team is to provide an organized approach to the management of stress responses for Fire Fighters having been exposed to, or showing signs of traumatic stress experiences in the line of duty.
- 4.2 Fire Service personnel shall be alert to recognize and promptly report any incident or changes in behaviour which may adversely effect Rocky View Fire Service personnel.
- 4.3 Company Officers shall be responsible for immediately reporting any event, or behaviour which may require a Critical Incident Debriefing. Reports are to be submitted to the Station Officer.
- 4.4 Station Officers shall notify the Assistant/Chief/CISD Coordinator, of the incident and begin gathering all pertinent information.
- 4.5 Peer Debriefers shall provide support, and referral as necessary to individuals involved in CISD, and should be regarded as a resource to Command. At the scene, peer debriefers will report to Command or an otherwise designated sector.

#### 5. PROCEDURE

- 5.1 The Assistant/Chief/CISD Coordinator shall immediately notify the Fire Chief and the Debriefing Team Facilitator by phone or page of the incident and report any actions he/she may have taken, ie:
  - a) Place all affected companies out of service, if possible, and request the Critical Incident Debriefing Team.
  - b) Arrange a defusing/debriefing before the end of the working shift or defusing/debriefing for select individuals.

- c) Arrange an in-service debriefing for all affected companies on the next scheduled working shift, pending a comprehensive review of labour reports, evidence, and other facts surrounding the incident.
- 5.2 Upon notification, the debriefing team facilitator shall initiate actions appropriate to the incident and necessary to ensure that all affected members receive proper care.
- 5.3 Critical Incident Debriefing shall be conducted in a location remote from the incident scene and in an area that will comfortably accommodate all personnel. All debriefing sessions to be STRICTLY CONFIDENTIAL.
- 5.4 Any discussions, opinions, or observations associated with a Critical Incident Debriefing shall not cause or affect transfers, hamper promotional opportunities, or result in disciplinary action.
- 5.5 Individuals who feel a need to seek assistance regarding a critical incident may contact the Debriefing Team Facilitator directly.
- 5.6 Critical Incident Stress Debriefings should be held before the Post Incident Analysis. This will enhance the PIA process.
- 5.7 Critical Incident Stress Debriefing sessions shall require MANDATORY attendance by all personnel affected by the incident. Direction to attend debriefing sessions will be made by supervising officers.

## 6. DEFINITIONS

- 6.1 Critical Incident Stress Debriefing Program - Studies of major incidents where numerous injuries or fatalities occurred, have revealed that a significant number of Fire Fighters experienced some form of stress-related symptoms following the incident. Many of these stress-related symptoms were transitory and most personnel had no long-term detrimental effects. However, the studies have also revealed that a small percentage of personnel experience continuing, long-term detrimental effects resulting from exposure to such incidents. Some of these effects have been delayed, surfacing later after a period of no apparent symptoms. Without professional intervention, personnel experiencing these long-term effects show declining work performance, deterioration of family relationships, and increased health problems.

- 6.2 Critical Incident - Any situation faced by Fire Fighters that causes them to experience unusually strong emotional reactions which have the potential to interfere with their ability to function either at the scene or later.
- 6.3 Facilitator - A professional licensed clinician who is trained in disaster psychology, crisis intervention, stress level assessment, and the use of the CISD program. The facilitator is responsible for the training of Peer Debriefers.
- 6.4 Co-Facilitator - health professional working with or under the direction of the facilitator.
- 6.5 CISD Coordinator - Rocky View Fire Service designated representative responsible for coordinating the CISD program.
- 6.6 Peer Debriefers - a representative of Rocky View Fire Service of any rank, trained and approved by the facilitator to assist in the CISD program.
- 6.7 CISD Team - a typical team will be comprised of one facilitator and as many peer debriefers as the facilitator may deem necessary, dependant on the size of the debriefing. The Fire Service team members role in the debriefing process will be to assist and support the professional counsellors. Any FOLLOW-UP care will be administered by the counselling professionals.

## 7. CISD Program

### 7.1 ON SCENE SUPPORT SERVICES

Intervention at or near the scene of operations. In most cases these services will be provided by the Peer Debriefers although the facilitator may be requested, dependant on the severity of the situation. On scene support will consist of the following types of services:

- a. One-on-one counselling to those Fire Fighters showing obvious signs of distress as a result of the incident or their participation.
- b. Advice and counsel to incident commanders on topics of stress management. Specifically issues related to the critical incident.
- c. Control victims, survivors and families to ensure the work of the Fire Fighting units will not be impeded by these individuals, until more appropriate agencies arrive.

## 7.2 DEFUSINGS

Defusings are performed after the incident and after the unit has returned to the station. The purpose is to offer information, support, allow initial ventilation of feelings, to set up or establish a need for a formal debriefing, and to stabilize Fire fighters so they can go home or back in service. It is similar to a "mini-debriefing" but is not as detailed or as long.

## 7.3 FORMAL DEBRIEFING

An organized discussion with Fire Fighters brought together to defuse the potential for long-term emotional trauma disorders. The structured discussion emphasizes that Fire Fighters are experiencing normal responses to abnormal events - they are not unique. CISD is not the same as a Post Incident Analysis as Fire Service operations and performance is not discussed. The debriefing process provides formats in which Fire Fighters can discuss their feelings and reactions, thus reducing the stress which results from exposure to critical incidents. It will produce a therapeutic effect and it will "accelerate" normal recovery process in normal persons suffering normal effects after an encounter with an abnormal situation. All debriefings will be STRICTLY CONFIDENTIAL.

8. This SOG shall remain in effect until superseded.

# **Appendix 3**



## **APPENDIX 3**

### **Reference Materials**

#### **National Fire Protection Association standards:**

- 299 Protection of Life and Property from Wildfire
- 1231 Water Supplies for Suburban and Rural Fire Fighting
- 1500 Fire Department Occupational Health & Safety
- 1901 Pumper Fire Apparatus
- 1902 Initial Attack Fire Apparatus
- 1903 Mobile Water Supply Fire Apparatus
- 1911 Service Tests of Pumps on Fire Department Apparatus

#### **Fire Underwriters Survey:**

- Water Supply for Public Fire Protection
- Dwelling Protection Grades

#### **Office of the Fire Commissioner:**

- Fire Department Operational Guidelines
- Establishment and operation of Fire Departments

#### **Province of Alberta Water Management Branch:**

- Design guidelines for rural residential community water systems

#### **ULC-S515:**

- Standard for Automobile Fire Fighting Apparatus



# **Appendix 4**



## **APPENDIX 4 - Fire Hydrant Maintenance Agreement**

This Agreement dated this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_

**BETWEEN:**

\_\_\_\_\_

having an address at (hereinafter called

the " \_\_\_\_\_ ")

**OF THE FIRST PART**

**AND:**

\_\_\_\_\_ Improvement District  
incorporated pursuant to the Municipal Act, RSBC 1979, c. 290  
having an address at \_\_\_\_\_  
(hereinafter called the "District")

**OF THE SECOND PART**

**WHEREAS:**

1. The (party of the first part) operates a fire department that services property located within the boundary of the District;
2. The District owns and operates a water distribution system;
3. Fire hydrants are and will be installed on the District's water distribution system and will require adequate inspection, maintenance and replacement for the purposes of the District and also for the purposes of the fire department;
4. The (party of the first part) wishes to ensure adequate inspection, maintenance and replacement of fire hydrants for their purposes;

**NOW THEREFORE** in consideration of the payments herein provided, the premises herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. The District hereby agrees to provide clear access to the fire hydrants by the fire department for the purposes of fire fighting, testing equipment, or for training.

2. The District agrees to follow the annual inspection and maintenance program for each fire hydrant as outlined in Schedule "A".
3. In consideration of the District performing the annual inspection and maintenance program set out in Schedule "A", the (party of the first part) shall pay to the District annually the sum of dollars (\$) for each hydrant located on the District's water system as of December 31st of the year previous to each annual payment.
4. The District shall invoice the (party of the first part) for fire hydrant inspection and maintenance in the month of January each year and the (party of the first part) shall pay such invoice on or before January 31st in each year.
5. The District shall be solely responsible for all the necessary inspections and maintenance of the hydrants and shall supply the (party of the first part) with the necessary information concerning the condition of the hydrants and the approximately water pressures available at each one.
6. Should any fire hydrant be damaged or destroyed, the same shall be replaced or repaired by the District as soon as possible.
7. The District shall not be liable for any damages, expenses or losses occurring by reason of suspension or discontinuation of water to any hydrant where such suspension or discontinuance is caused by circumstances beyond the control of the District.
8. The (party of the first part) hereby agrees to indemnify the District, its servants, agents or employees from any claims, demands, actions or causes of action which may be made against the District arising out of or in consequence of any loss (including without limitation, loss of life), injury or damage of all and every description to person or property caused in whole or in part or in any way contributed to by any act or omission of the District, its servants, agents or employees, in the performance of this Agreement or in the purported performance of this Agreement or purported provision of fire protection or in failing to perform this Agreement.
9. This Agreement shall be for a period of one year commencing \_\_\_\_\_, 19\_\_ and continues until midnight of the date of its anniversary.
10. This Agreement is renewed automatically for further one year terms unless one party notifies the other party in the manner provided herein and prior to September 30th, of its intention to terminate this Agreement.

11. All notices and demands required or permitted to be given hereunder shall be in writing and may be delivered personally, sent by telecopier, telegram, or telex, or may be sent by first class prepaid mail to the address set forth on page one of this Agreement. Any notice delivered by or sent by telecopier, telegram, or telex, shall be deemed to have been given and received at the time of delivery. Any notice delivered by mail as aforesaid, shall be deemed to have been given and received on the expiry of seventy-two (72) hours after it is posted at a mail box situated in the Province of British Columbia, addressed to the address provided herein or to such other address or addresses as may from time to time be notified in writing between the parties herein, provided that if there shall be between the time of mailing and the actual receipt of the notice, a mail strike, slow down, or other labour dispute which might affect the delivery of such notice by the mail, then such notice shall be only effective when actually delivered.
12. Time is of the essence of this Agreement.
13. Should any part of this Agreement be declared or held invalid for any reason, such invalidity shall not affect the validity of the remainder which shall continue in force and effect and be construed as if this Agreement has been executed without the invalid portion.
14. The parties hereto shall execute and do all such further deeds, acts, things, and assurances as may be reasonably required to carry out the intent of this Agreement.
15. Wherever the singular or masculine or neuter is used in this Agreement the same shall be construed as meaning the plural, the feminine, or body corporate where the context or the parties hereto required.
16. This Agreement shall enure to the benefit of and be binding upon the parties hereto and their successors and permitted assigns.

IN WITNESS WHEREOF the parties hereto have executed this Agreement with the effect as of the day and year written above.

The Corporate Seal of the \_\_\_\_\_ District  
was hereunto Affixed in the presence of:

SEAL

\_\_\_\_\_  
Chairperson of the Improvement District

\_\_\_\_\_  
Secretary of the Improvement District

The Corporate Seal of the (party of the first part)  
was hereunto affixed in the presence of:

SEAL

\_\_\_\_\_  
  
\_\_\_\_\_

## **SCHEDULE "A"**

### **FIRE HYDRANT MAINTENANCE SCHEDULE**

The following will be undertaken on an annual basis for each fire hydrant:

#### **INSPECTION**

1. Check the condition of the thread on the operating spindle and nut
2. Check the straightness of the operating spindle and "off-pitch" or twist of the thread on the spindle.
3. Check the thrust collar and bearing surfaces of the operating nut on a compression hydrant
4. Check all "O" ring seals and packing in the thrust collar, stuffing box, head assembly, "O" ring seal plate, seat ring, etc.
5. Check the main valve seat rubber, drain rubbers and drain mechanism
6. Check the main valve seat ring
7. Check for proper drainage
8. Pressure test

#### **MAINTENANCE**

1. Replace any worn or malfunctioning parts
2. Lubricate threads with appropriate grease
3. Repaint as required
4. Clear any undergrowth which hinders access to the hydrants

In addition to the above, the District will keep a maintenance record for each hydrant and note the general condition of each hydrant.



**FIRE ALARM SYSTEM ANNUAL TEST AND INSPECTION REPORT\***

DATE: \_\_\_\_\_

F DING NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

BUILDING NO.: \_\_\_\_\_ INSTALLATION NO.: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

SYSTEM MANUFACTURER: \_\_\_\_\_

MODEL NO.: \_\_\_\_\_

OPERATION: \_\_\_\_\_ SINGLE STAGE \_\_\_\_\_ TWO STAGE

**TEST RESULTS**

(EVERY LINE MUST HAVE THE APPROPRIATE MARKING IN THE SPACE PROVIDED)

1. The fire alarm system functioned correctly under general alarm condition. Yes ☐ No ☐

2. Location of manual alarm initiating devices operated with main A.C. power off:

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_

The fire alarm system functioned correctly during the above test. Yes ☐ No ☐

3. Each manual alarm initiating device has been individually tested.\*<sub>2</sub> Yes ☐ No. of devices

4. Each automatic alarm initiating device has been tested.\*<sub>2</sub> Yes ☐ No. of devices

5. Each audible and visual signalling device has been tested.\*<sub>2</sub> Yes ☐ No. of devices

6. Correct annunciation has been confirmed for each device tested. Yes ☐

This is to certify that the fire alarm system has been tested in accordance with CAN/ULC-S536-M86 and these records document the results of testing performed.

Signature of Technician  
{Please Print Surname}

Certification  
No.

Company

\*Note<sub>1</sub> Form approved by the Senior Technical Officer, Fire Standards pursuant to Sentence 6.1.1.4. of the Alberta Fire Code 1992.

\*N<sub>2</sub> Details of these tests for all initiating and signalling field devices have been recorded on the applicable pages of this report.

**PRE-TEST CHECKLIST**

1. Is there a fire department interconnection? Yes ☐ No ☐

If yes, take necessary steps to alert central station/fire department, etc.

**DO NOT USE THE FIRE DEPARTMENT EMERGENCY TELEPHONE NUMBER**

Name of person contacted at the central station or fire department.

Name	Title	Phone No.
Date and time fire alarm system is out of service: _____		
Date and time fire alarm system is back in service: _____		
2. Do you have auxiliary functions that can impair building functions such as elevator capture, fan shutdown, door holders, etc.? _____ Can these be disabled and tested by groups? _____		
3. Have building occupants been made aware of fire alarm testing? _____		
4. Has a pre-determined <u>time</u> been established for testing signalling devices? _____		
5. Have provisions been made for acquiring access to the secured areas of the building? _____ Are spare reset and panel keys available? _____		
6. Has an alternative plan been established to alert occupants and local fire department should an actual fire condition occur during testing?		
7. The fire alarm system has emergency power provided by: <input type="checkbox"/> AC Generator <input type="checkbox"/> Rechargeable Battery		

**CONTROL EQUIPMENT TEST RECORD**

If the fire alarm system has a control unit proceed to page 3 "Control Panel Tests".

If not, is the electrical circuit breaker for the fire alarm system identified:

☐ Yes ☐ No

EVERY LINE MUST HAVE THE APPROPRIATE MARKING IN THE BOX PROVIDED

☐

YES

☒

NO

☐

N/A NOT APPLICABLE FUNCTION

Tested correctly

Did not test correctly  
(See Remarks Pg 8)

Function or feature not provided on this fire alarm  
system

All alarm signalling appliances sound simultaneously in the general alarm state powered by the emergency power supply (5 min. minimum duration).

☐

All audible alarm signals sound simultaneous in the evacuation alarm state powered by the emergency power supply (as per the Alberta Building Code 1990).

☐

Alarm signals are audible throughout the building.

☐

Visual alarm signals clearly indicate a visual alarm to all points in the visual alarm area when operated on normal and emergency power supply.

☐

Each audible and visual signalling device has been tested.\*<sub>2</sub>

☐

NUMBER OF DEVICES: \_\_\_\_\_

### CONTROL PANEL TESTS

Power on Indicator .....

☐

Common Trouble Lamp .....

☐

Common Trouble Signal .....

☐

Trouble Silence Switch .....

☐

AC Power Failure Trouble .....

☐

General Alarm Operation .....

☐

General Alarm Automatic Cutout Timer \_\_\_\_\_ Minutes .....

☐

Control Panel Interconnection to Fire Department Confirmed .....

☐

Alarm Signal Silence Operation .....

☐

Alarm Signal Silence Lamp .....

☐

Alarm Signal Silence Inhibit 1 (one) Minute .....

☐

Al. Initiating Circuit Individually Tested for Alarm .....

☐

Alarm Lamp Operation (Individually Tested) .....

☐

Alarm Lamp Designation Checked .....

☐

CONTROL PANEL TESTS CONTINUED

- Audible Alarm Signals Operated on AC Power .....
- Audible Alarm Signals Programmed per Specification .....
- All Audible Alarm Signal Circuits Operate on General Alarm  
(Battery Standby or Standby Emergency Power) .....
- Auxiliary Relays Operate .....
- Auxiliary Relays Programmed Per Specification .....
- Emergency Voice Paging Interface Operation .....
- Trouble Lamps (Initiating Circuits) .....
- Trouble Lamps (Signal Circuits) .....
- Lamp Test .....
- Module Alignment .....
- Plug in Components Securely in Place .....
- Exposed Electrical Contacts Clean .....
- Designation Indications for Common Control and Indicators .....
- Reset Operation .....
- Glass and Door Clean .....
- Control Panel Locked .....
- Cleanliness .....

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BATTERY TESTS

- Battery Type .....
- Battery Voltage (AC Power On) ..... ADC
- Battery Charging Current ..... MA
- Battery Voltage (AC Power Off - Supervisory Condition) ..... VDC
- Battery Voltage (AC Power Off - General Alarm Condition) Full Load ..... VDC
- Battery Inspected for Physical Damage .....

<input type="checkbox"/>
--------------------------

**BATTERY TESTS CONTINUED**

Battery Terminals Cleaned and Lubricated ..... ☐  
 Battery Terminals Clamped Tightly ..... ☐  
 Electrolyte Level Checked ..... ☐  
 Specific Gravity of Electrolyte Per Manufacturer Specification ..... ☐

**VOICE-COMMUNICATION TESTS**

Power-on Indicator ..... ☐  
 Communication System Trouble Lamp ..... ☐  
 Communication System Trouble Silence Switch ..... ☐  
 Paging All-Call Switch ..... ☐  
 Paging All-Call Lamp ..... ☐  
 Individual Paging Zone Select Switches (individually tested) ..... ☐  
 Individual Paging Zone Select Indicators ..... ☐  
 Trouble Lamps Voice Paging ..... ☐  
 Microphone Press to Talk Switch ..... ☐  
 Operation of Voice Communication System Does Not Interfere with First Minute of Alarm Signalling ..... ☐  
 Emergency Voice Paging Loudness Level ..... ☐  
 Emergency Voice Paging Operates on All-Call (on emergency power) ..... ☐  
 Emergency Telephone Call-In Lamp ..... ☐  
 Emergency Telephone Call-In Audible Signal ..... ☐  
 Individual Telephone Zone Select Switches (individually tested) ..... ☐  
 Individual Telephone Zone Select Indicators ..... ☐  
 Emergency Telephone Verbal Communication ..... ☐  
 Module Alignment ..... ☐  
 Plug-In Components Securely In Place ..... ☐  
 Are Exposed Electrical Contacts Cleaned ..... ☐  
 Designation Indications for Common Control Indicators ..... ☐

VOICE-COMMUNICATION TESTS CONTINUED

C     and Door Clean ..... ☐

Control Panel Lock ..... ☐

Cleanliness ..... ☐

REMOTE TROUBLE UNIT

Trouble Lamp ..... ☐

Trouble Signal ..... ☐

ANNUNCIATOR TESTS

Annunciator Alarm Lamp Operation (Individually Tested) ..... ☐

Annunciator Alarm Lamp Designation Checked (as per attached list) ..... ☐

Trouble Lamp ..... ☐

T     le Signal ..... ☐

Power "On" Lamp ..... ☐

Lamp Test ..... ☐

Lamp Supervision ..... ☐

Signal Silence Lamp ..... ☐

Annunciator (Auxiliary Functions) ..... ☐

Cleanliness ..... ☐

ANCILLARY DEVICES

If no ancillary devices are present check here ☐

OPERATIONAL

<u>TYPE OF DEVICE (List)</u>	<u>YES</u>	<u>NO</u>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>

[illegible]

**\*NOTE: Power supply for ancillary devices must not be from fire alarm power supply circuit.**

Remarks: Complete only if operation or function of ancillary device is not normal.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

- E. Circuit Number  
F. Annunciator Indication  
G. Supervision of Wiring to Device Confirmed\* 3(next page)

Page \_\_\_\_\_ of \_\_\_\_\_

[illegible]

## DEVICE TESTING

### LEGEND

DEVICE	DESCRIPTION	TYPE	MODEL NO.
M	Manual Pull Station		
HT	Heat Detector - Fixed Temperature		
RHT	Heat Detector - Rate of Rise		
S	Smoke Detector		
DS	Duct Smoke Detector		
FS	Sprinkler Flow Switch <sup>*5</sup>		
TS	Sprinkler Tamper Switch <sup>*6</sup>		
SA	Smoke Alarm Single Station Type <sup>*7</sup>		
B	Bell		
K	Horn (Klaxon Type)		
C	Chime		
V	Visual Alarm Appliance		
SP	Loudspeaker		
HSP	Horn Loudspeaker		
T	Fire Fighters Telephone		
AD	Ancillary Devices		

### NOTES

Note 3 Confirmation of wiring supervision to each individual device is only required during installation verification or a complete building audit of the system and is not required at the annual test.

Note 4 Identify the specific ancillary devices in the remarks column.

Note 5 For sprinkler flow switch indicate the delay of flow indicator in the remarks column.

Note 6 Sprinkler tamper switch cause trouble condition to be annunciated but not an alarm condition.

Note 7 Single station smoke alarms are not part of the fire alarm system but testing of such devices may be required by the Fire Authority.

### AFTER TEST CHECKLIST

- Reconnect Auxiliary Functions (off site connections) .....
- Reconnect Ancillary Functions .....
- Reconnect Time Limit Cutouts .....
- Ensure Fire Alarm System is on Normal Power .....
- Advise Building Management Work Is Completed .....
- Advise Fire Department Work Is Completed .....
- Ensure That The Alarm System Is Functional\*, .....

### SUMMARY

- |    |   |     |                          |    |                          |
|----|---|-----|--------------------------|----|--------------------------|
| 1. | The fire alarm system is now <u>FULLY</u> functional.                                 | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 2. | The fire alarm system is operational with minor deficiencies as noted in this report. | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 3. | The fire alarm system has major deficiencies as noted in this report.                 | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 4. | A copy of this report has been given to: _____  |     |                          |    |                          |

BUILDING OWNER/BUILDING OWNER'S REPRESENTATIVE

Note 8: Ensure that date and time fire alarm system is back in service is noted on page 2 in appropriate space.

TEST AND MAINTENANCE CODES REQUIRE THAT THIS RECORD BE MAINTAINED BY THE BUILDING OWNER FOR A MINIMUM OF TWO YEARS.

# **Appendix 5**



## **APPENDIX 5**

### **Basic Fire Department Equipment**

(Reprinted from U.L.C. S515.M88)

The following list of equipment is compiled for fire departments who have one piece of fire apparatus. Where specific information regarding apparatus is required, the Underwriters' Laboratories of Canada Standard ULC S515 should be referred to. This Standard may be purchased from the Underwriters' Laboratories of Canada (see Appendix 2 Addresses, and Appendix 3 References).

### **Equipment Typically Carried by Water Tank Trucks**

#### **(Mobile Water Supply)**

2 - hydrant wrenches

1 - 900 mm crowbar

1 - 7 m metal extension ladder

2 - axes, (one pick-head, one flathead) with unpainted wooden handles

2 - electric hand lights, minimum 6 V dry-cell or 4 V wet cell

2 - approved hand portable fire extinguishers, the variety to be suitable for use on Class A, B and C fires. Minimum capabilities to be 20BC rating in dry chemical, 10BC in carbon dioxide and 2A in water type extinguishers

1 - pike pole at least 2 m

240 m of 38 mm hose with two combination solid stream-spray nozzles

120 m of 65 mm hose

4 - back pack type pump tank extinguishers

2 - shovels, long-handle, pointed

2 - hose spanner wrenches

2 - hay forks, 3-tine

2 - 14 L buckets

- 1 - double female 65 mm coupling
- 1 - double male 65 mm coupling
- 1 - first aid kit
- 1 - portable collapsible water tank of at least 3600 L capacity
- 1 - portable pump with gasoline-driven engine
- 9 m of smooth-bore hard suction hose of size appropriate to the pump or pumps carried and with strainer of adequate capacity

### **Equipment Recommended for Each Triple Combination Engine**

#### **(Typical Municipal Service)**

- 1 - 3 kg pick-head axe, with unpainted wooden handle
- 1 - flathead axe, with unpainted wooden handle
- 1 - 4 m, fire department type metal ladder with folding roof hooks
- 1 - fire department type metal extension ladder to extend at least 7 m

**NOTE:** Purchaser should specify a greater length such as 9 or 10 m as being more useful in most cases.

- 2 - electric hand lights, 6 V dry cell or 4 V wet cell minimum
- 2 - approved hand portable fire extinguishers such that Class A, B and C fires may be handled. Minimum sizes shall be 20BC rating for dry chemicals, 10BC for carbon dioxide and 2A rating for water types.

**NOTE:** Purchaser should specify details of types desired.

- 1 - pike-pole or plaster hook, minimum 2 m.
- (Hard suction hose of diameter and length to be specified by purchaser. (See Clause 12.4.3.) Usually to 3 m lengths.
- 1 - strainer of adequate capacity for suction hose if hard suction hose is specified
- 1 - swivel adapter with suction hose threads on one end and local large hydrant thread on the other end.

If apparatus is equipped with hose reel, 60 m of 25 mm booster hose with shut-off nozzle of combination solid stream and variable cone spray type, capable of delivering at least 45 L/min at 675 kPa nozzle pressure.

1 - 65 mm double female coupling

1 - 65 mm double male coupling

2 - hydrant wrenches

4 - hose spanners for use on both 38 mm and 65 mm hose

1 - 125 cm crowbar

1 - 65 mm shut-off play-pipes for each 900 L/min of pumper rating

2 - or more combination solid stream and variable cone spray nozzle tips capable of delivering 900 L/min at 675 kPa nozzle pressure in each way for 65 mm play-pipes

1 - set of solid stream nozzle tips of 25, 29 and 32 mm diameter for at least half of the 65 mm play-pipes

2 - 38 mm shut-off nozzles of combination solid stream and variable cone spray type capable of delivering at least 400 L/min at 675 kPa nozzle pressure in each way

1 - gate or ball-valve 65 to 38 mm reducing wye

1 - 65 mm single gate or ball valve

1 - first aid kit (24 unit fire department assortment)

2 - salvage covers, 350 by 550 cm

3 - sprinkler stoppers or wedges

2 - brooms

1 - scoop shovel

1 - pail

2 - hose straps or belts

1 - 38 m of 16 mm rope

1 - hose clamp

2 - self-contained approved breathing apparatus sets of at least 1/2 h rating and two spare tanks or canisters

At least 120 m of 38 mm hose

At least 360 m of 65 mm hose preferable in part of larger diameter

### **Additional Equipment Desirable for Engines**

**(According to nature of service)**

6 - back-pack type pump tank extinguishers

2 - hay forks, 3-tine

1 - pair bolt cutters

4 - fire brooms

1 - portable pump with gasoline-driven engine

2 - metal rakes

2 - long handle, pointed shovels

Additional 38 mm hose and nozzles for rural service

Additional longer extension ladder in lieu of ladder truck support

Additional self-contained breathing apparatus sufficient that each fire fighter fighting interior fires may be equipped, along with one spare bottle per S.C.B.A.



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